

SAT

San Antonio International Airport



Briefing for:
Ad Hoc Regional Committee
Technical Advisory Committee
Community Advisory Committee

November 2-3, 2009



AECOM

in association with:

Jacobs Consultancy

Michael Gallis & Associates

Sunland Group

KGB Texas

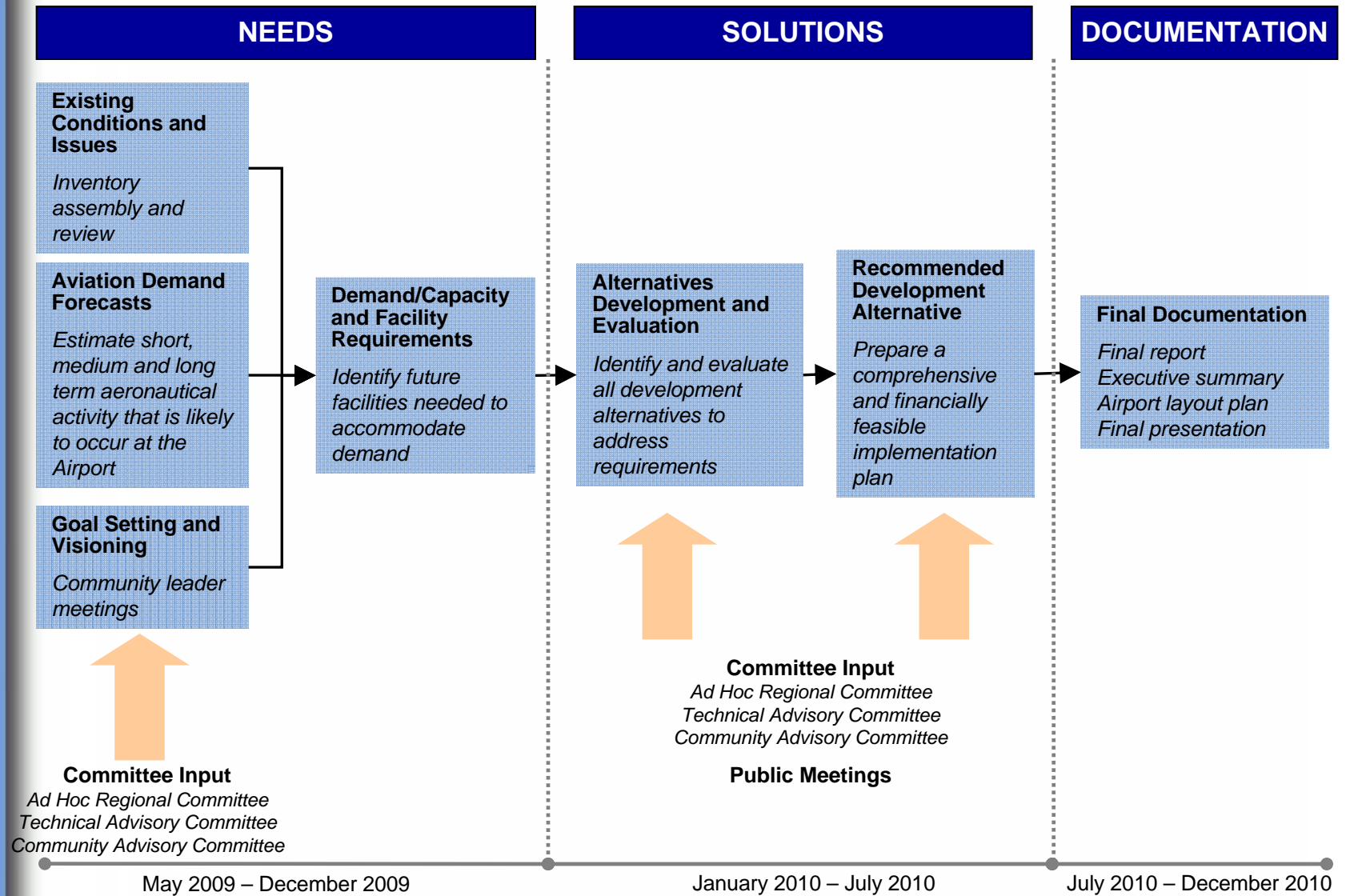
AECOM

Agenda

- About the Master Plan
- Airport Activity
- Existing Airport Facilities
- Context for the Master Plan Goals and Objectives
- Conclusions and Project Next Steps



Master Plan Workflow



The AECOM Team

Firm	Role	Leadership
AECOM	Project management, coordination, lead role on inventory, facility requirements, alternatives, recommended development plan	Larry Bauman, P.E. Project Manager
Jacobs Consultancy	Lead role on forecast and financial feasibility analyses, support on inventory, facility requirements, alternatives, recommended development plan	Holland Young, LEED AP Deputy Project Manager
Michael Gallis & Associates	Vision development, support public and stakeholder involvement	Michael Gallis
Sunland Group	Inventory, cost estimating, engineering support	Brian Nasky
KGB Texas	Public and stakeholder involvement	Jeff Coyle



Vision 2050

➤ Project results

- Airport plans that will support and enhance the future mission of San Antonio and the region

➤ Major project phases

- Needs
- Solutions
- Documentation

➤ Notable aspects

- Immediate Action Plan
- Visioning
- Civic engagement



Project Tasks

- **Immediate Action Plan - *Concluded***
 - Terminal 2 decommissioning
 - Terminal C strategic feasibility plan
 - Final report submitted September 21, 2009
- **Visioning & Existing Conditions - *Underway***
 - Inventory – existing facilities analysis
 - Advisory committees – regional input
 - Visioning – first committee meetings
- **Forecasts – *Submitted to FAA***
 - Data collection, scenario development, methodology selection
 - Forecast submitted to the FAA for review and approval
- **Facility Requirements - *Underway***
 - Future Airport needs
 - Airfield, terminal, landside, cargo, general aviation, military, support facilities

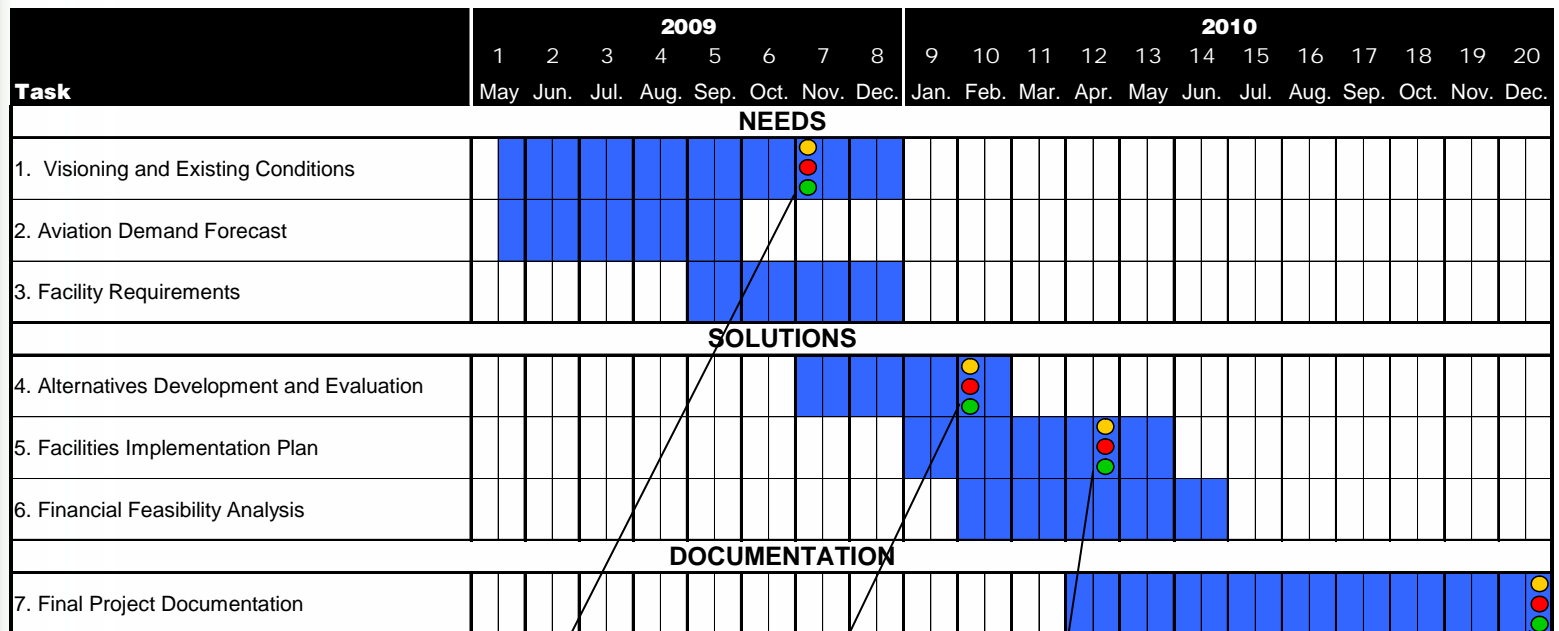


Project Tasks, continued

- **Alternatives Analysis**
 - Define and analyze potential solutions
- **Facilities Implementation Plan**
 - Recommended solutions
 - Integrated airport development plan
 - Phasing plan
- **Financial Feasibility**
 - Financial capacity
 - Capital improvement plan
 - Plan of finance
- **Documentation**
 - Final technical report
 - Executive summary
 - Airport Layout Plan set (FAA approval required)



Project Schedule Summary



Legend:

- Project Task Duration
- Ad-Hoc Regional Committee
- Technical Advisory Committee Meeting
- Community Advisory Committee Meeting

Project
Introduction,
Goals &
Objectives

Goals &
Objectives,
Development
Alternatives

Alternatives
Analysis,
Recommended
Concept

Recommended
Plan,
Financial
Feasibility, Final
Vision





Airport Activity

Airport Activity

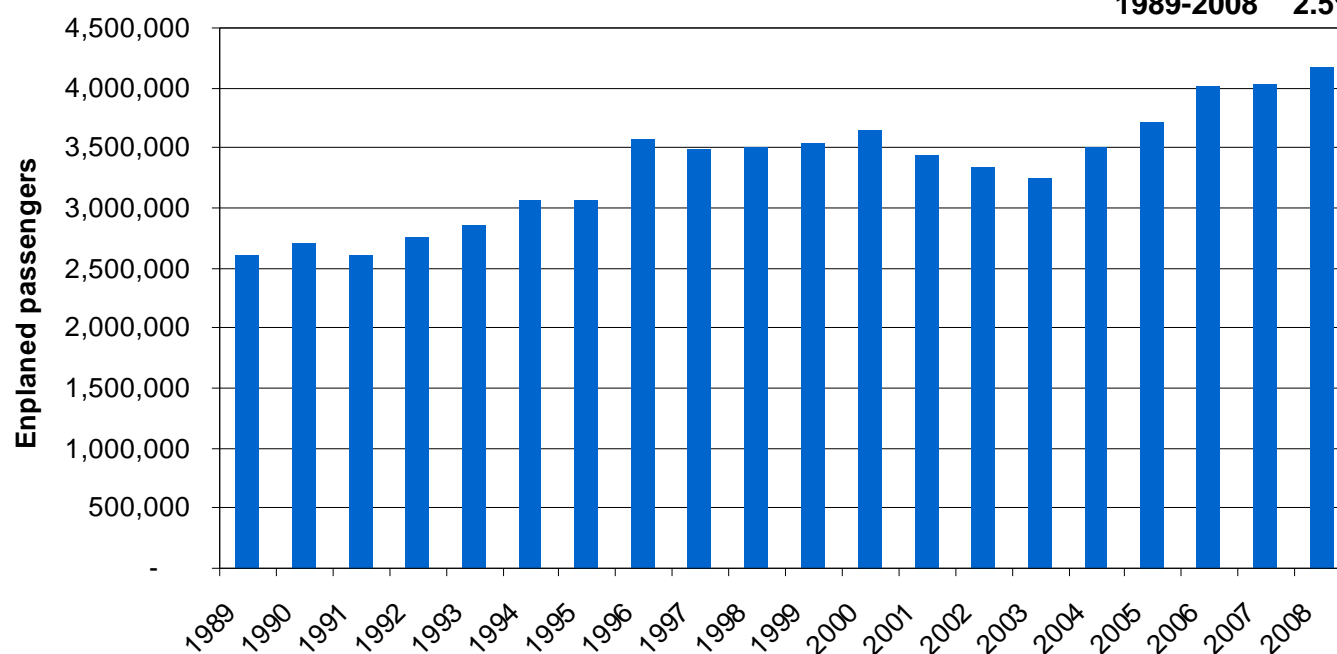
- **Develop an aviation demand forecast to support the Vision 2050 master plan.**
- **Forecast elements:**
 - Enplaned passengers
 - Cargo tonnage
 - Aircraft operations
 - Peaking characteristics
 - Flight schedules
- **Forecast horizon:**
 - 2008 base year
 - 2010-2015: short term operational planning
 - 2020: Intermediate term capital improvement programming
 - 2030: long-range conceptual development



Historical Enplanements

Average growth rates	
1989-1999	3.1%
1999-2008	1.8%
2003-2008	5.1%
1989-2008	2.5%

Historical Enplanements



- Long-term trend of mostly steady moderate growth
- Declines follow national trends
- Growth driven by national trends and expanded SAT air service



Enplanement Market Share

**San Antonio International Airport
Enplanement Market Share**

**Primary carriers
increase dominance**

Airline	1999	2008	2009YTD
Southwest	34.8%	34.9%	37.6%
American	16.9%	18.5%	18.8%

**Legacy carriers
mostly maintain
share**

Continental	12.6%	12.1%	11.5%
Delta	16.0%	8.5%	8.4%
United	5.0%	7.1%	7.2%
Northwest	2.9%	5.6%	4.5%
US Airways	2.1%	4.2%	4.5%

**New LCCs recently
entered market**

Frontier	0.0%	2.3%	2.5%
ExpressJet	0.0%	1.7%	0.0%
AirTran	0.0%	1.6%	2.8%
Spirit	0.0%	0.7%	0.3%

**Mexicana provides
international service**

Mexicana	1.7%	1.3%	1.4%
----------	------	------	------

TWA	4.9%	0.0%	0.0%
Other	3.2%	1.5%	0.4%

Total	100.0%	100.0%	100.0%
--------------	---------------	---------------	---------------

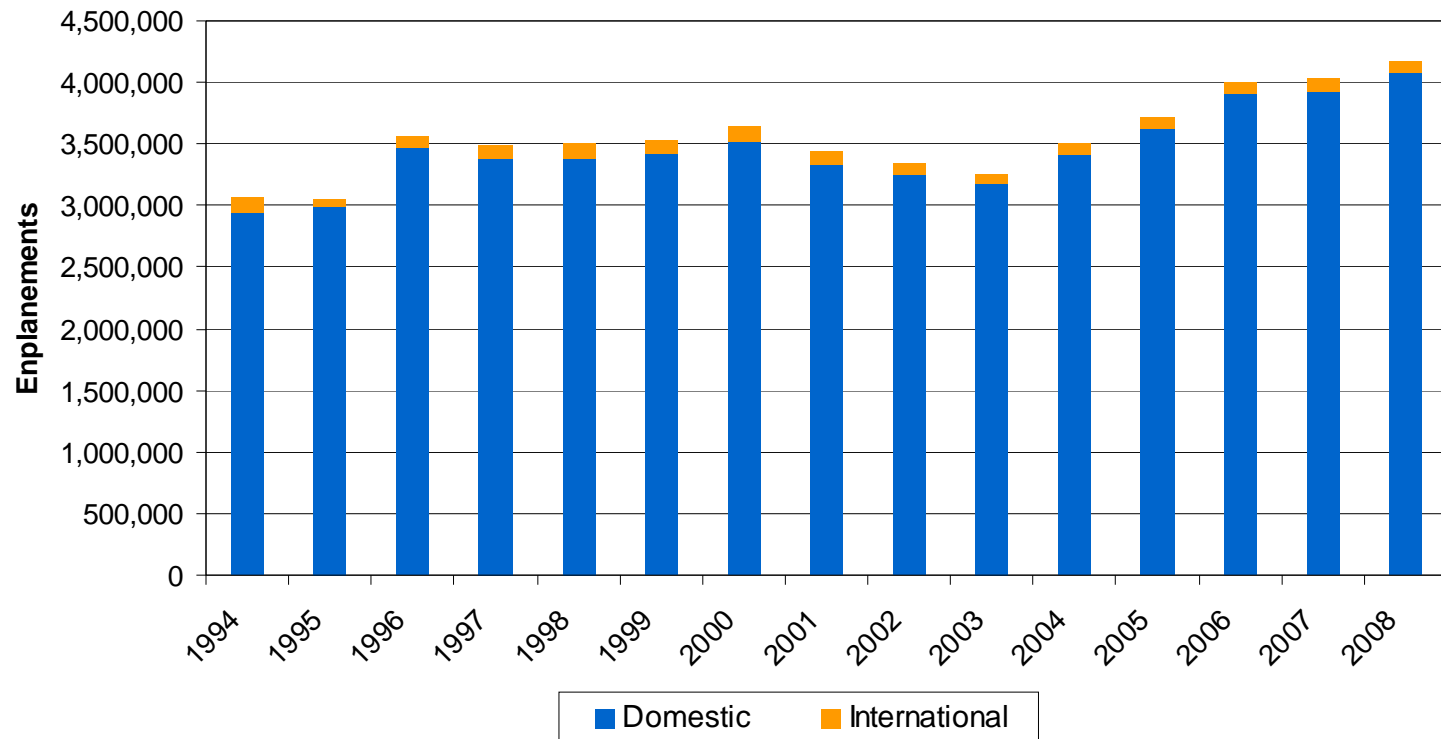


Domestic Air Service



Domestic and International Enplanements

Domestic and International Enplanements



- Domestic enplanements typically account for 96% to 98% of total
- International service is primarily by Mexicana and Aeromexico to Mexico City and Monterrey
- International volume has remained between 80,000 to 120,000 enplanements



International Air Service



Forecast Approach

➤ Air Traffic is a Derived Demand

- Local economic and demographic profile
- Identify events that influence demand
- Research long-term econ/demo outlook

➤ Historical Aviation Demand

- Analyze long and short-term trends
- Identify reasons for divergence from trend
- Compare to U.S. and benchmark airports

➤ National and Global Issues

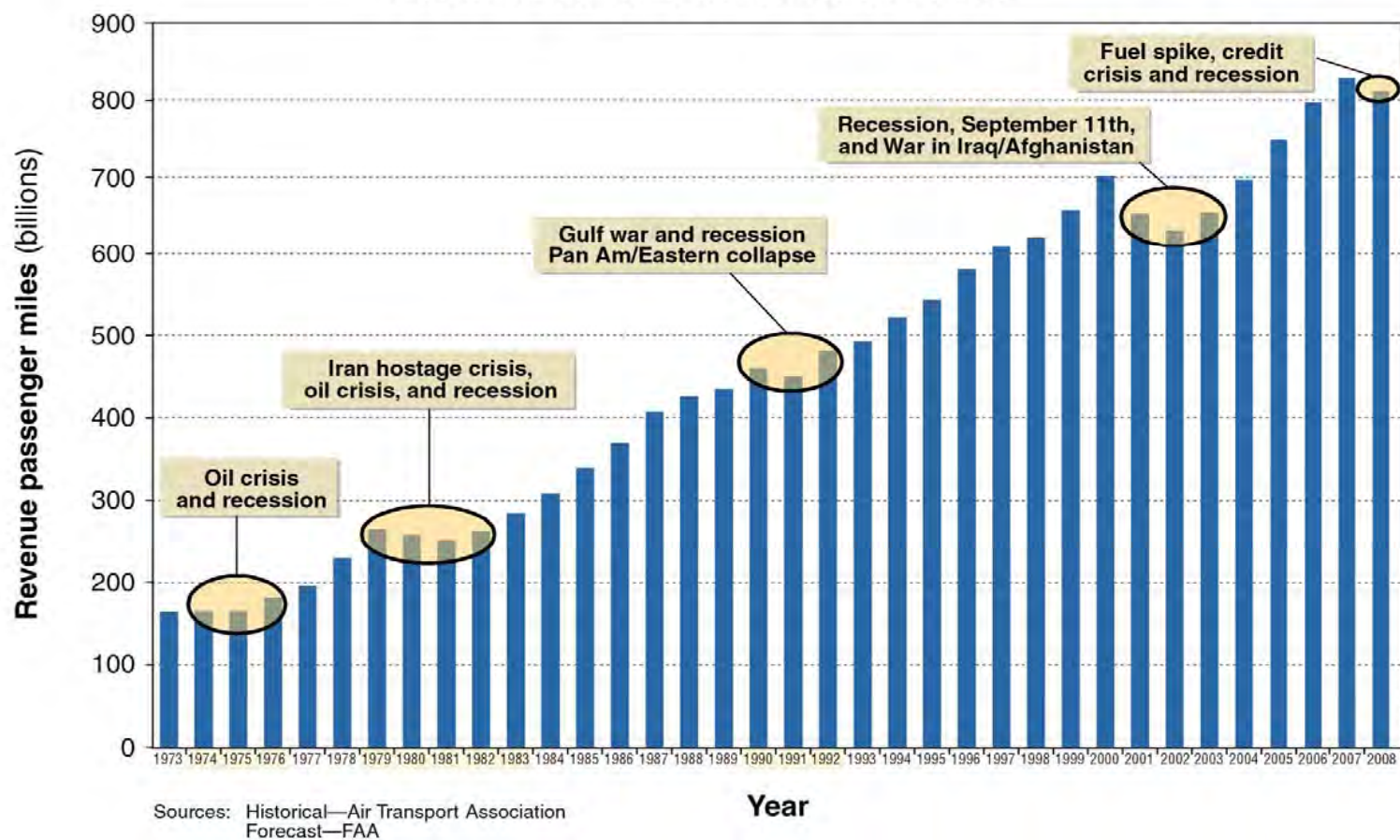
- GDP is a good predictor of air travel demand
- Oil shocks and other economic events will reoccur
- Overall outlook for air travel demand

➤ Prepared 3 scenarios (baseline, high growth and low growth) to account for uncertainty in demand



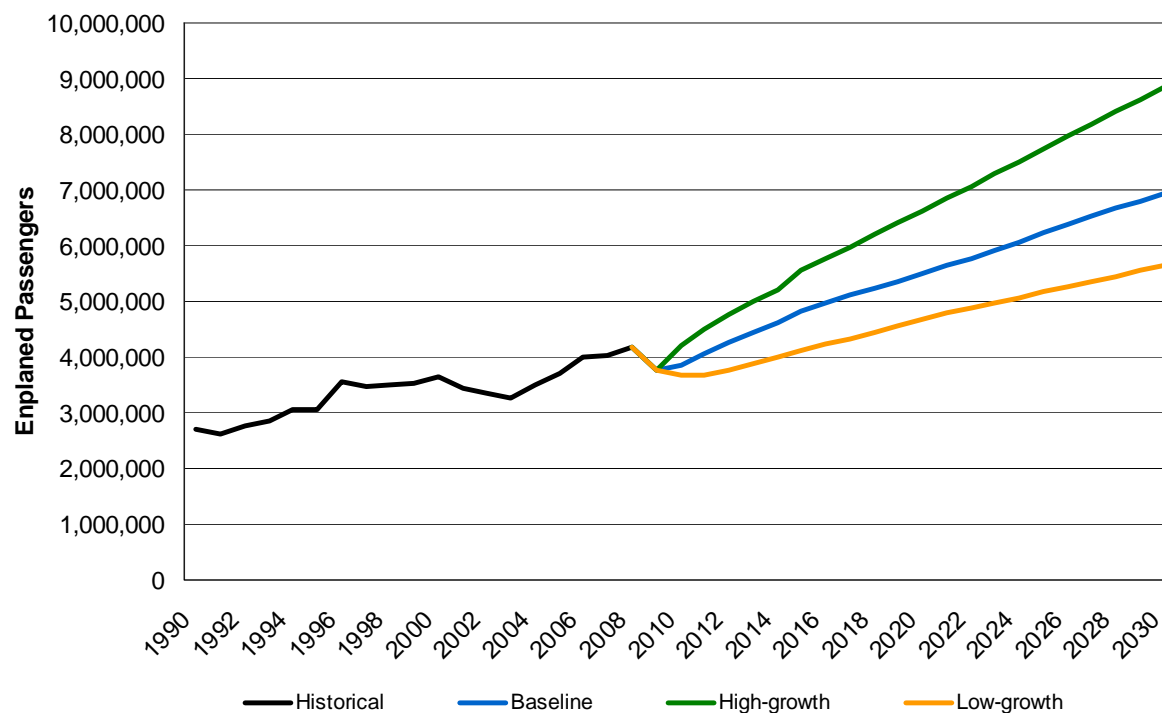
Background Analysis

LONG-TERM TRENDS IN PASSENGERS



Enplanement Forecasts

Enplanement Forecast Scenarios



Baseline 3% growth in 2010, recovery to 2008 levels by 2012.

4.5% growth from 2010 through 2015.

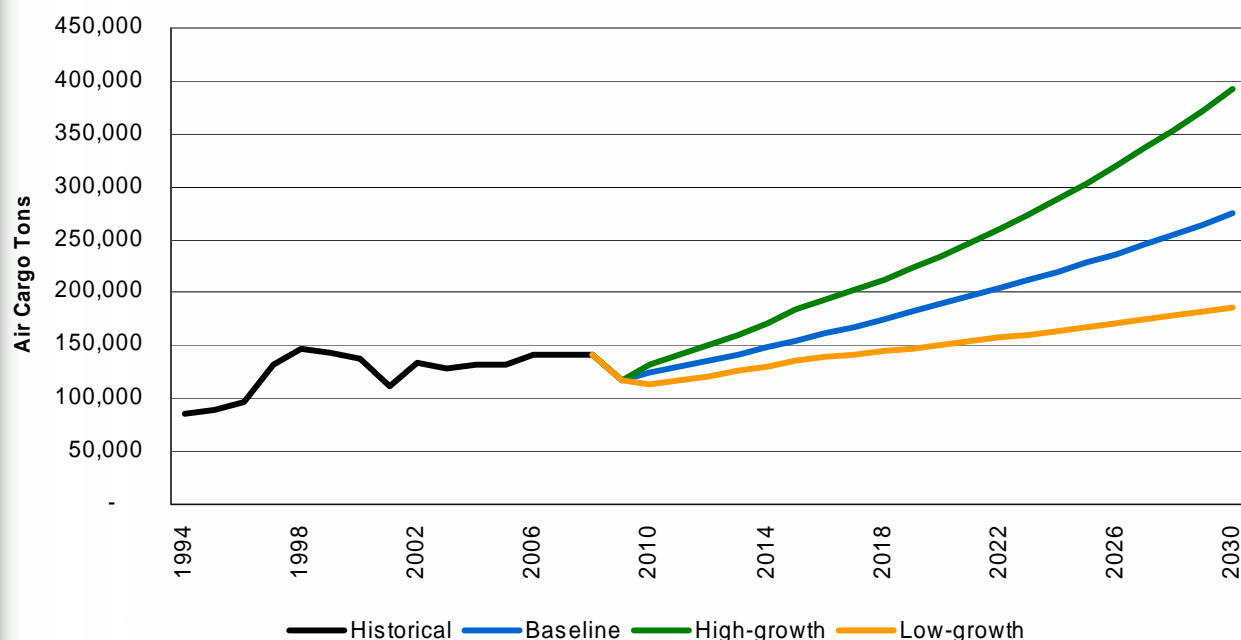
Return to average historical growth after 2015 of 3.5% to 2.0%.

ENPLANEMENT FORECASTS						
Forecast	Estimate	Projections				CAGR
	2009	2010	2015	2020	2030	2009-2030
Baseline	3,750,000	3,863,000	4,814,000	5,500,000	6,940,000	3.0%
High-growth	3,750,000	4,197,000	5,547,000	6,625,000	8,848,000	4.2%
Low-growth	3,750,000	3,668,000	4,105,000	4,687,000	5,647,000	2.0%



Air Cargo Forecast

Air Cargo Tonnage Forecast Scenarios



Baseline forecast projects decline of 18% in 2009 followed by recovery to 2008 levels by 2013.

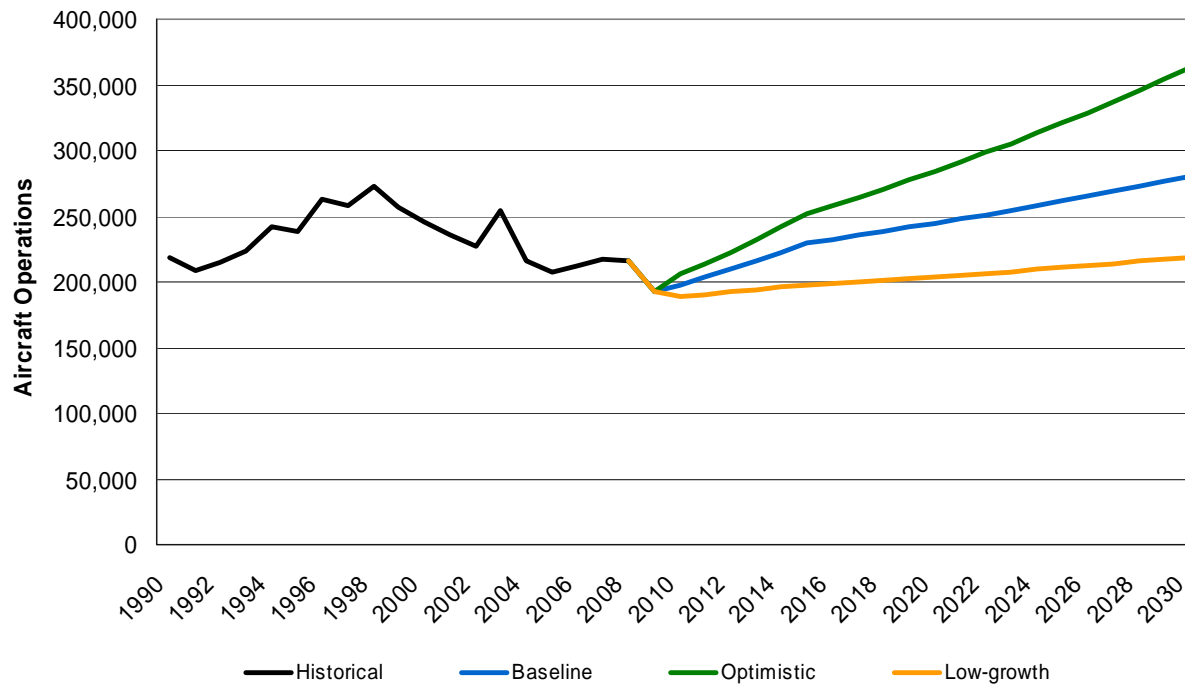
Return to average historical growth after 2013 of 4.5% to 5%

Long-term growth projected at 4.3%

AIR CARGO TONNAGE FORECASTS						
Forecast	Estimate	Projections				CAGR
	2009	2010	2015	2020	2030	2009-2030
Baseline	117,900	124,200	155,200	189,200	274,900	4.1%
High-growth	118,000	132,000	183,300	234,200	391,100	5.9%
Low-growth	117,400	112,900	135,700	150,700	186,500	2.2%

Aircraft Operations Forecasts

Operations Forecast Scenarios



Baseline forecast projects decline of 11% in 2009 followed by recovery to 2008 levels by 2014.

Commercial operations drives long-term growth as GA, Military and Air taxi level off.

Total operations long-term growth projected at 1.2%

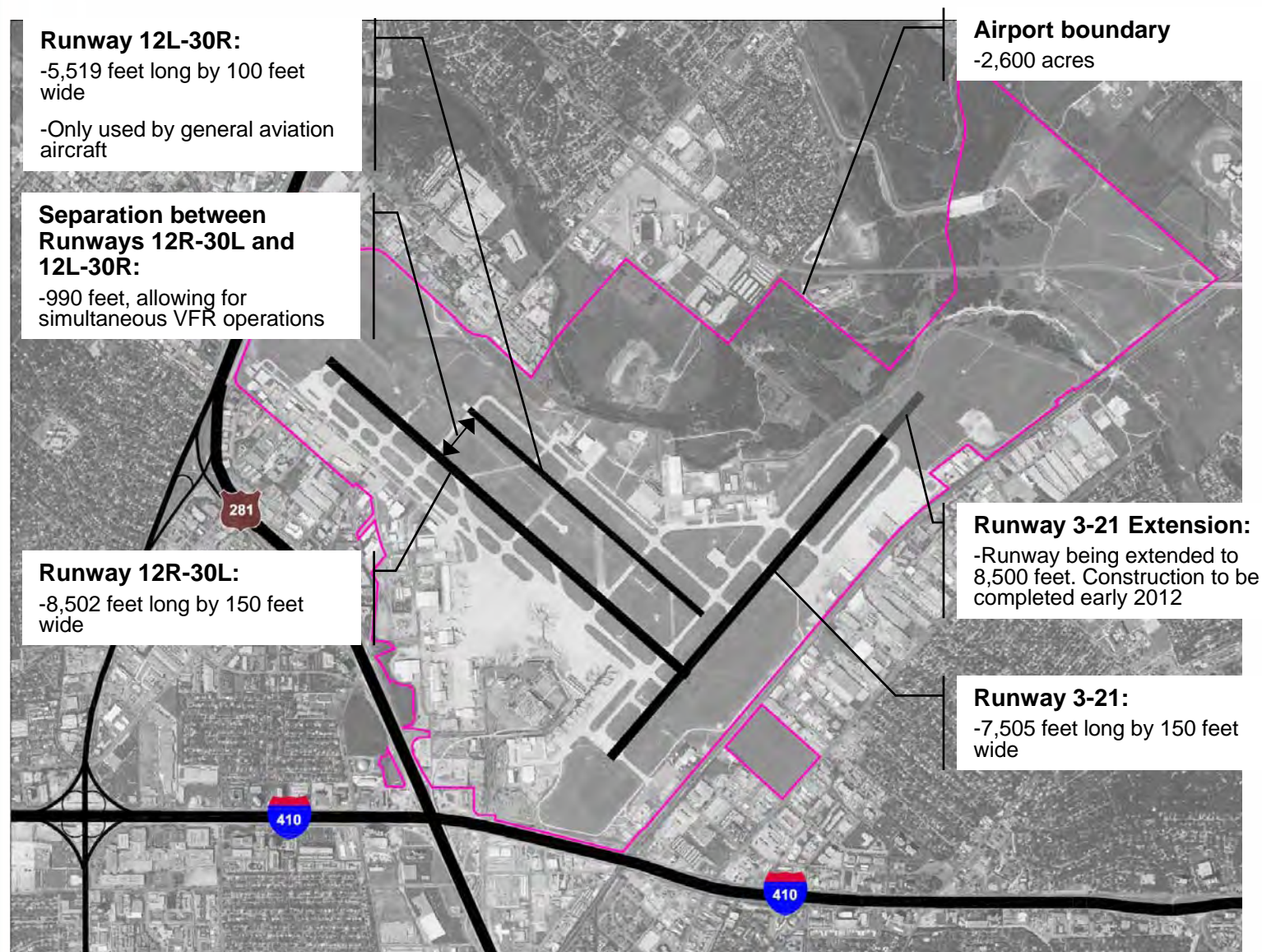
OPERATIONS FORECASTS						
Forecast	Estimate	Projections				CAGR
	2009	2010	2015	2020	2030	2009-2030
Baseline	193,000	197,400	229,200	244,700	280,800	1.8%
High-growth	193,200	205,700	252,000	284,000	363,000	3.0%
Low-growth	192,900	188,600	197,700	204,000	219,000	0.6%



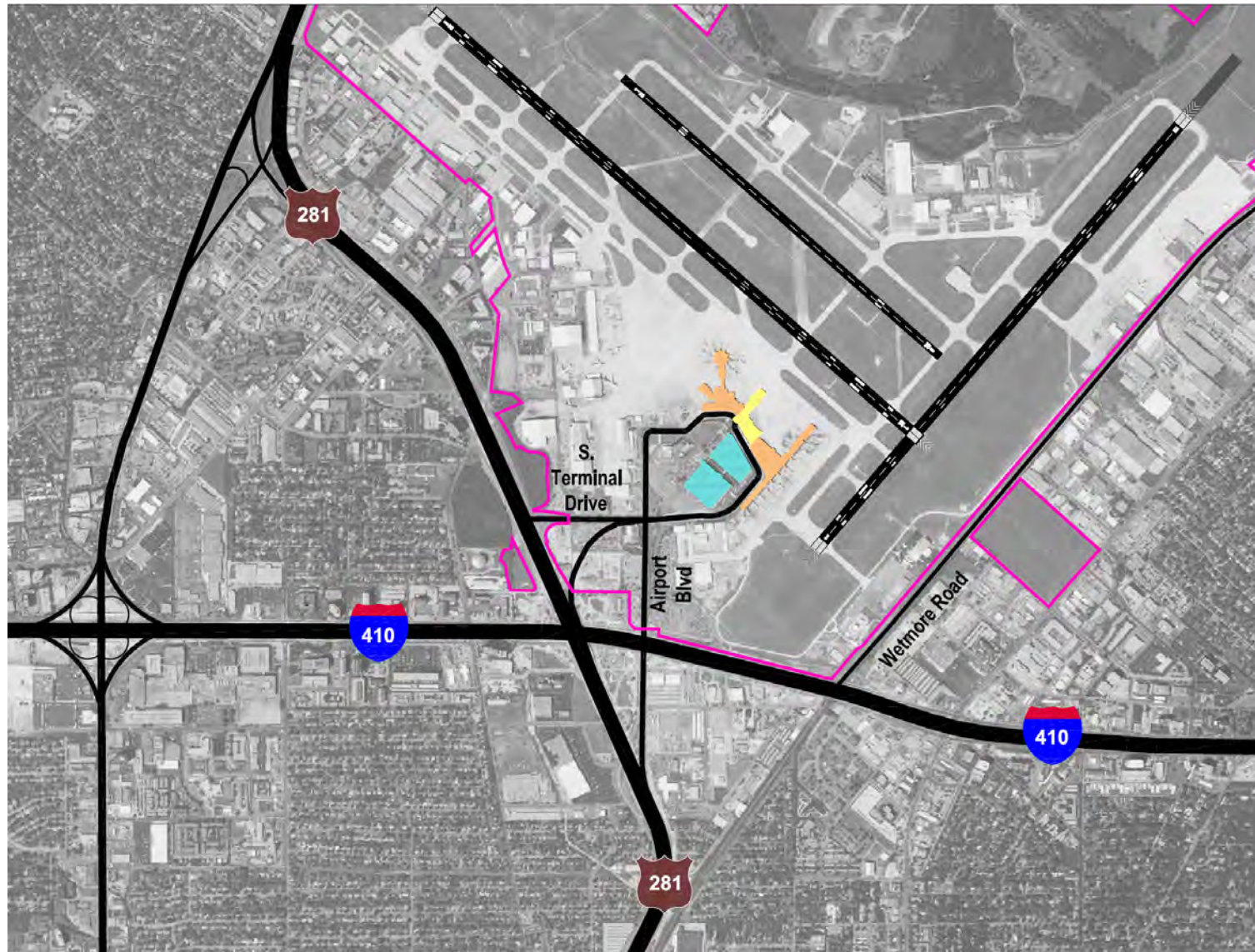


Existing Airport Facilities

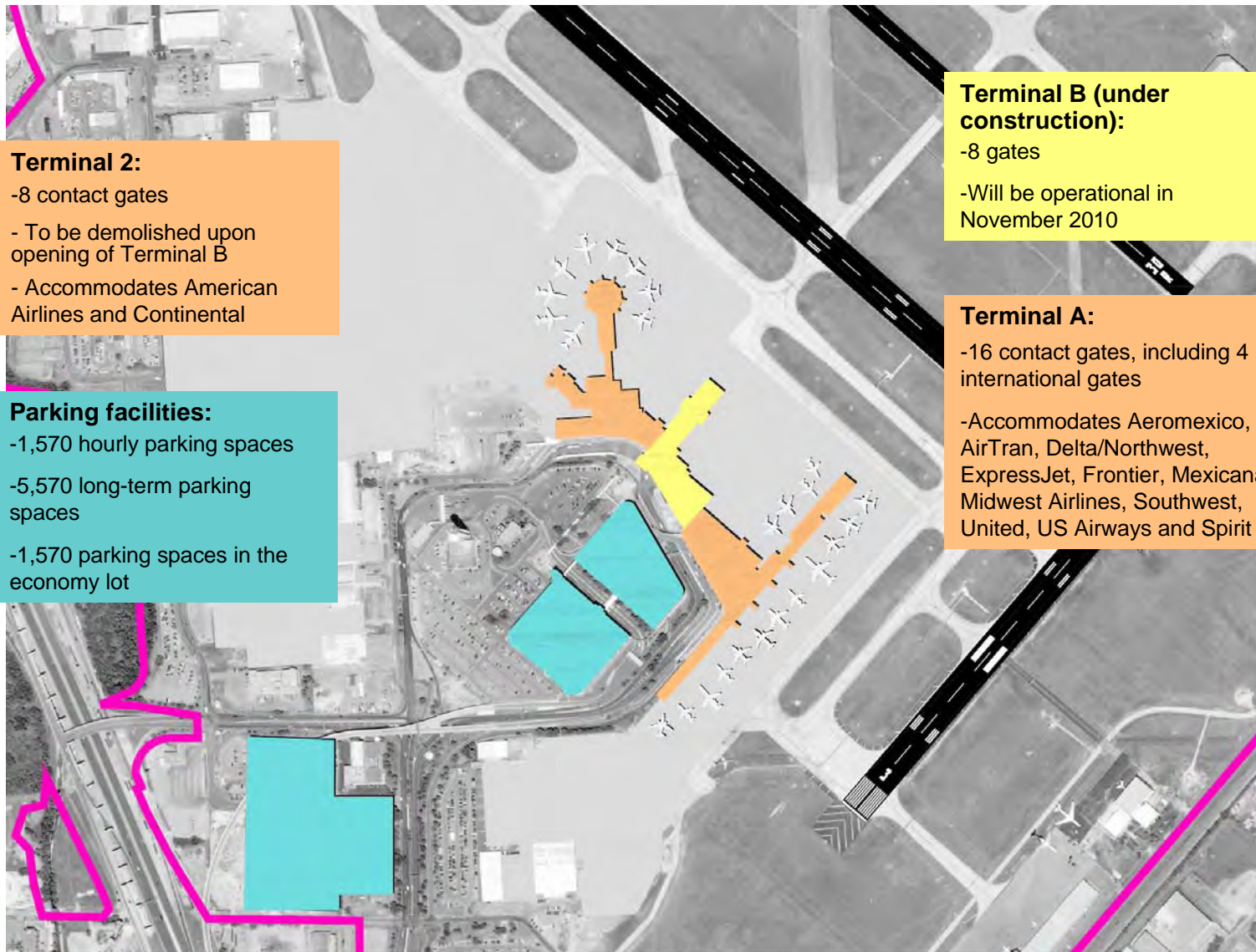
Existing Airfield Facilities



Airport Access



Existing Terminal Facilities



Terminal 2:

- 8 contact gates
- To be demolished upon opening of Terminal B
- Accommodates American Airlines and Continental

Parking facilities:

- 1,570 hourly parking spaces
- 5,570 long-term parking spaces
- 1,570 parking spaces in the economy lot

Terminal B (under construction):

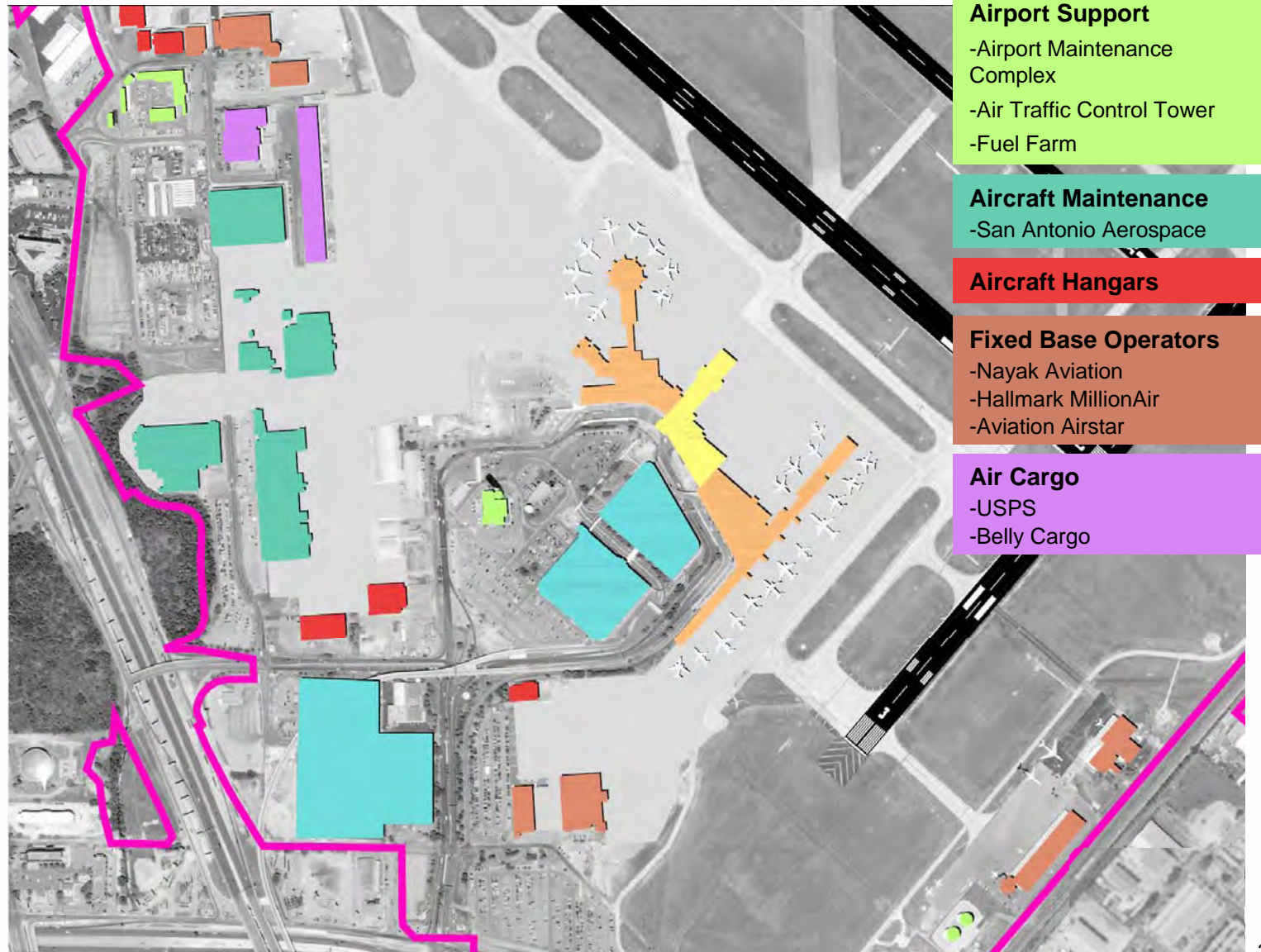
- 8 gates
- Will be operational in November 2010

Terminal A:

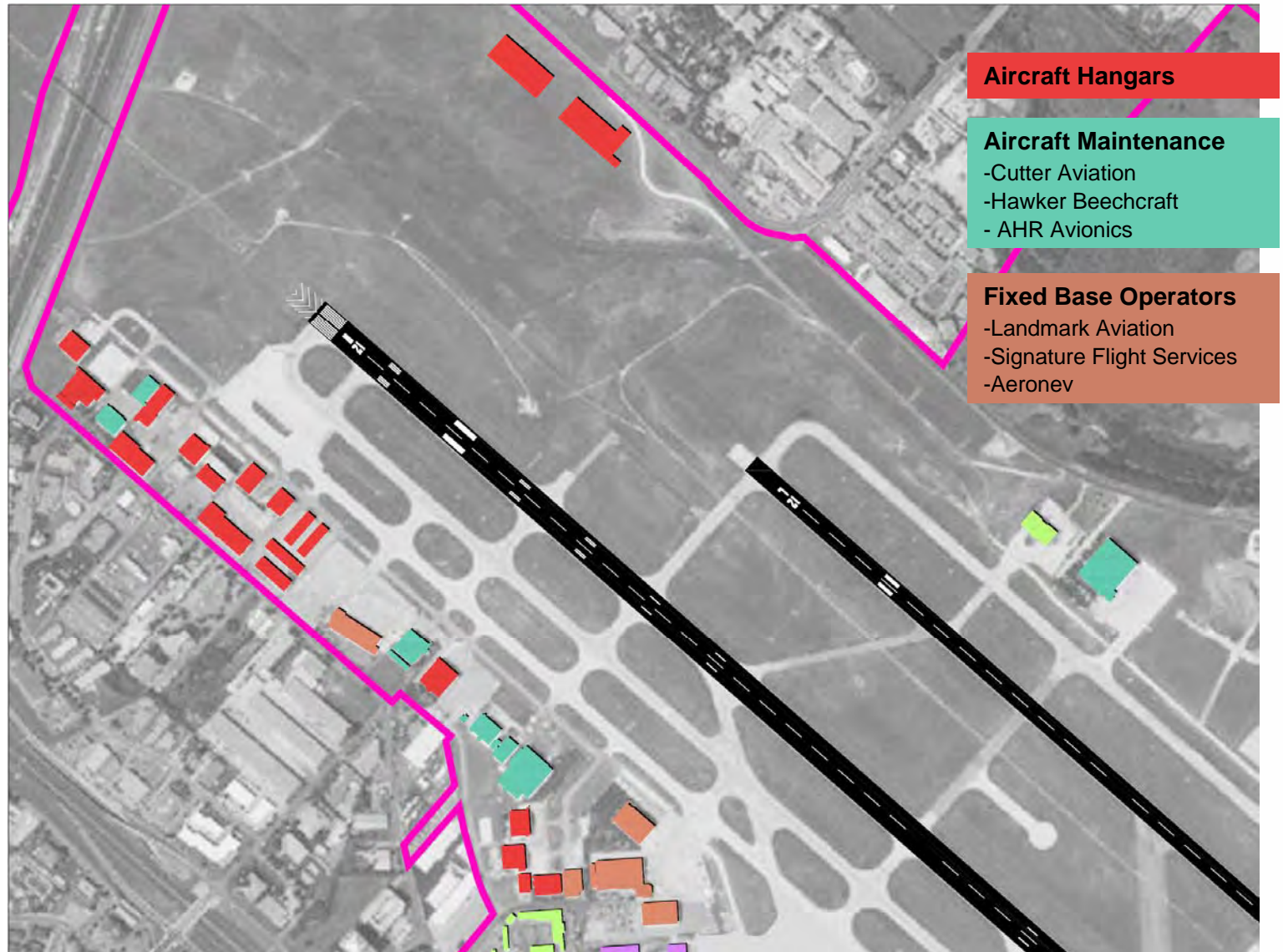
- 16 contact gates, including 4 international gates
- Accommodates Aeromexico, AirTran, Delta/Northwest, ExpressJet, Frontier, Mexicana, Midwest Airlines, Southwest, United, US Airways and Spirit



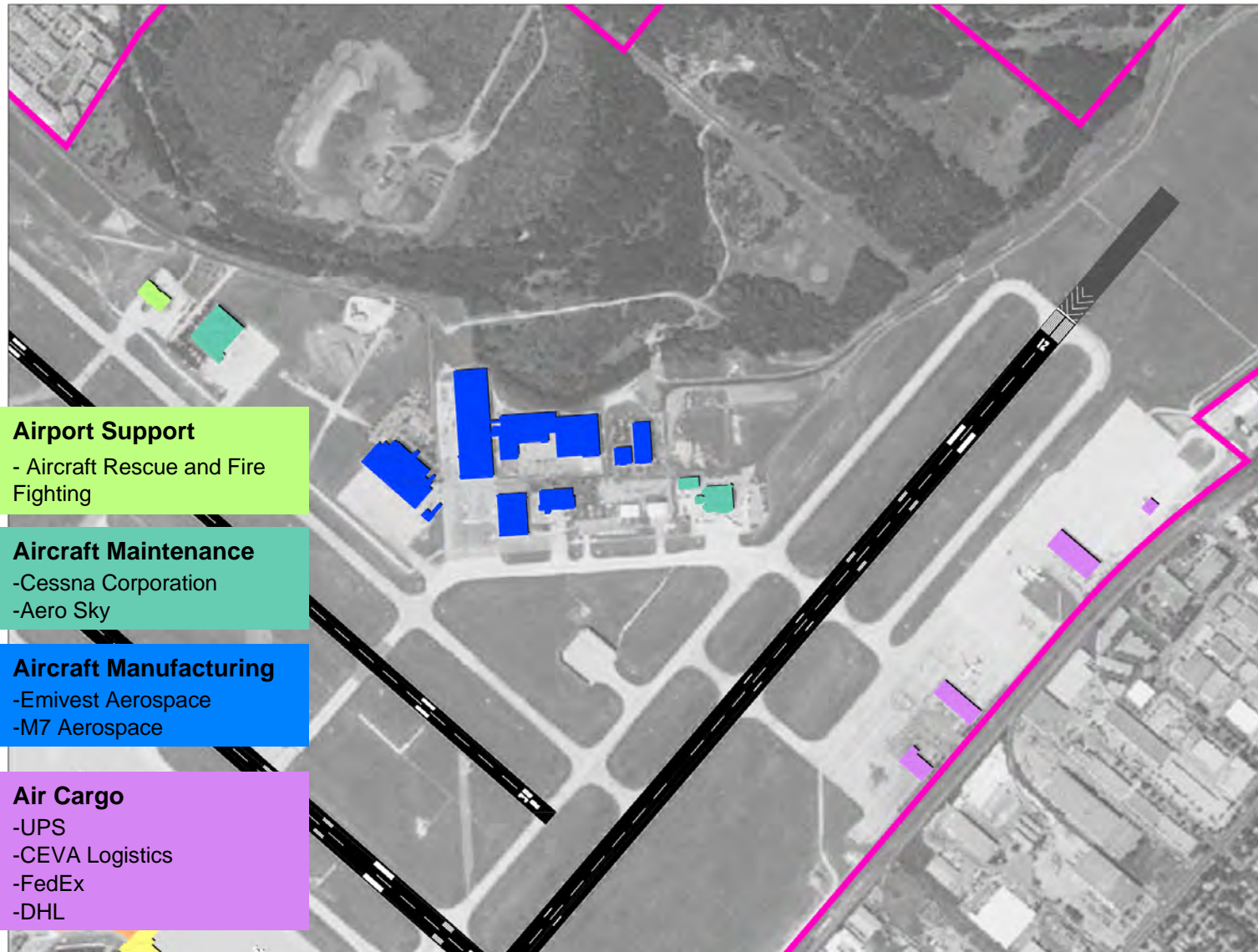
Existing Facilities – Terminal Area



Existing Facilities – West Area



Existing Facilities – North & East Areas



Airport Support

- Aircraft Rescue and Fire Fighting

Aircraft Maintenance

- Cessna Corporation
- Aero Sky

Aircraft Manufacturing

- Emivest Aerospace
- M7 Aerospace

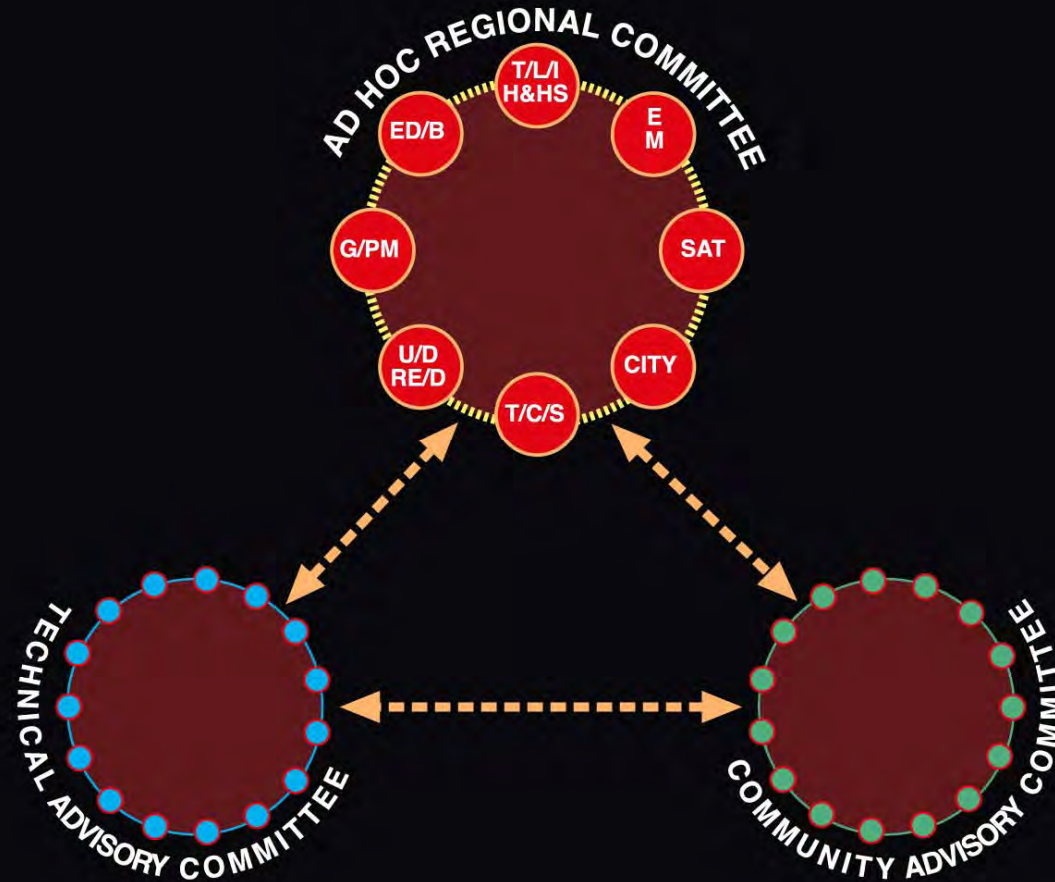
Air Cargo

- UPS
- CEVA Logistics
- FedEx
- DHL

Context for the Master Plan Goals and Objectives



Committee Structure



Context

Technical issues that will define the future of the Airport

➤ Capacity

- How much capacity is required? (airfield, terminals, parking, etc.)

➤ Time

- When will we need it?

➤ Money

- How much will it cost?

➤ Legacy

- How will this phase of development position SAT for the future?



Basic Concepts

...that will help guide the process

➤ Maximizing

- Pushing any variable to its highest possible level of performance

➤ Optimizing

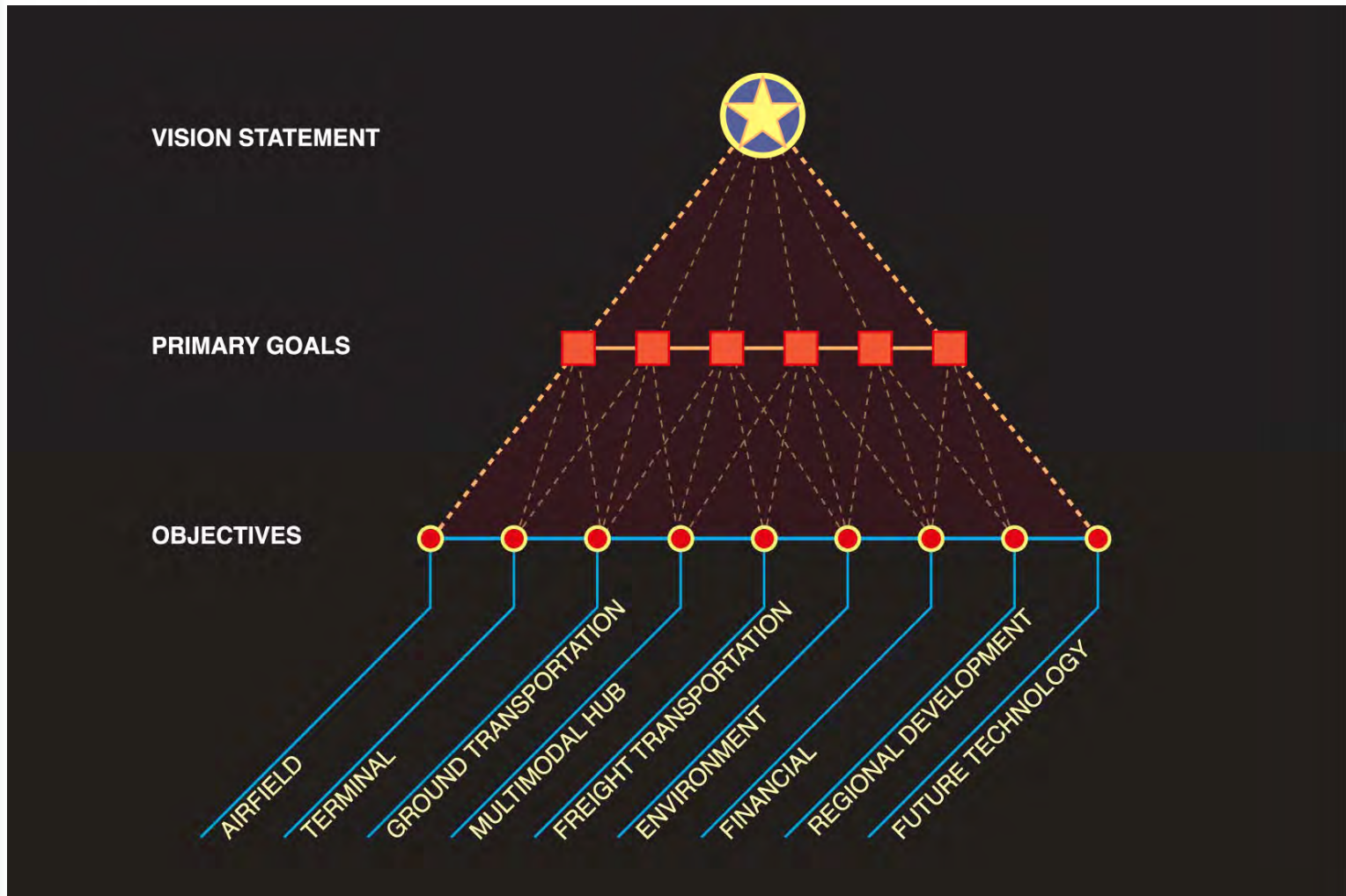
- Balancing the performance of a multi-variable network so it can reach its ultimate

➤ Satisfizing

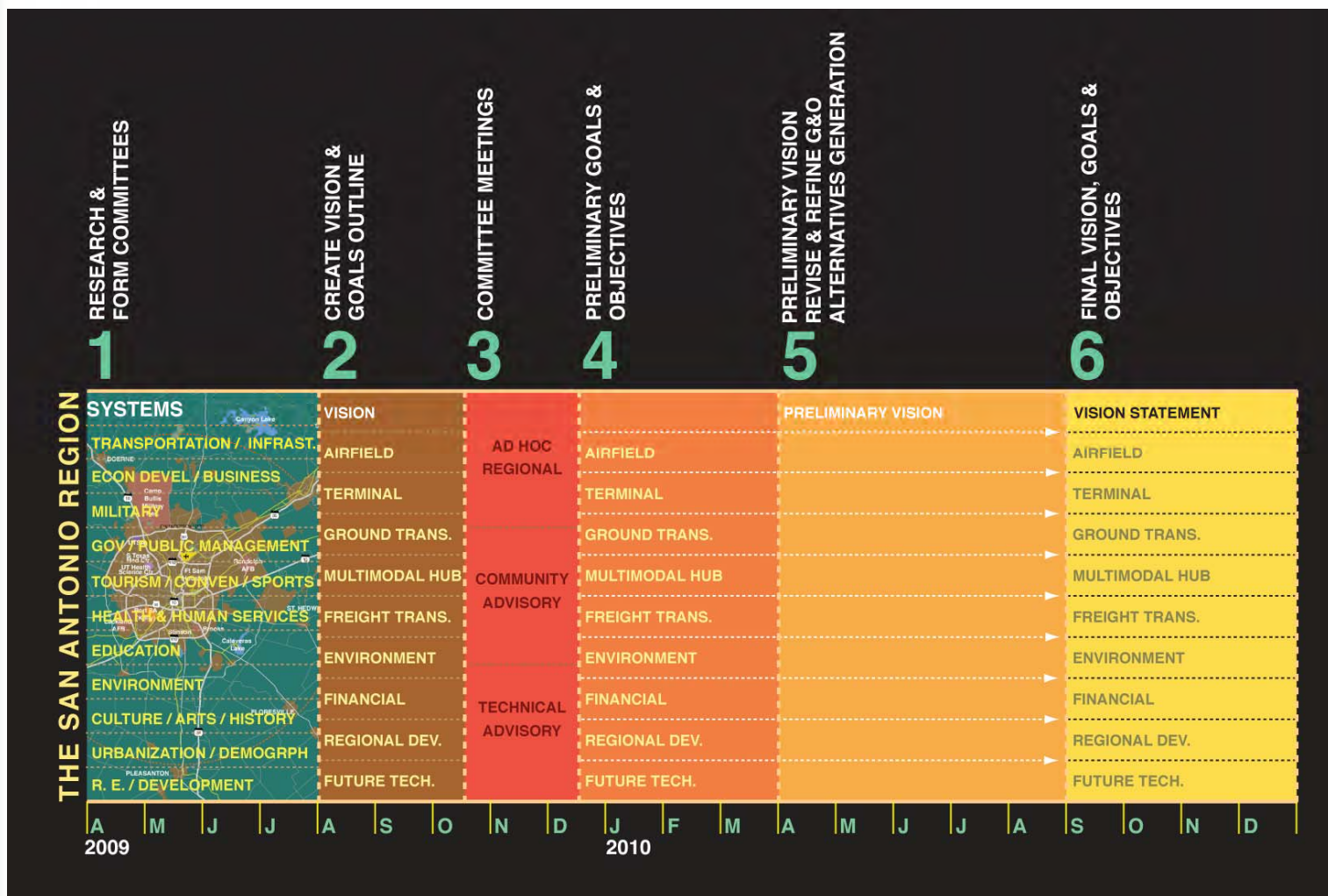
- Fulfilling the needs, expectations and wishes of the community



Developing the Vision



Process



Process

- **What do we do at this meeting?**
 - Presentation and discussion of:
 - Role of the Airport in the future of San Antonio
 - Goals & Objectives
- **What will we do at the next meeting?**
 - Focus on the specifics of the Goals & Objectives
- **How do we finish?**
 - Build the Vision Statement



City of San Antonio Vision

➤ **The Master Plan of the City of San Antonio will provide a functional framework to guide in the development and implementation of policies that promote:**

- Equal opportunity to all San Antonio citizens and equity in the distribution of benefits.
- Safe, dynamic and sustainable neighborhoods which offer employment opportunities, high quality education, adequate and affordable shelter, health care, and recreational amenities.
- A vibrant economic climate which will attract and support a wide diversity of business opportunities and community services to provide benefits within the metropolitan area

- San Antonio Master Plan Policies; May 29, 1997



City of San Antonio Mission:

- **We deliver quality city services and commit to achieve San Antonio's vision of prosperity for our diverse, vibrant and historic community.**

-City of San Antonio Aviation Dept. website (www.sanantonio.gov/aviation/info_noise.asp)



City Economic Development Goals

- Encourage economic diversity and jobs creation which are compatible with San Antonio's natural and cultural resources.
- Promote a business-government relationship that addresses the needs of businesses to operate in a positive and mutually beneficial environment.
- Create an environment of entrepreneurship, productivity, and innovation in San Antonio that promotes business start-up and business growth.
- Provide economic opportunities in targeted areas, particularly within Loop 410 and the southern sector.
- Provide a labor force qualified to meet the needs of San Antonio's employers.

- San Antonio Master Plan Policies; May 29, 1997



City Natural Resources Goals

- Preserve the unique, rare and significant features of San Antonio's natural environment.
- Integrate environmental quality protection into all phases of local planning and policy implementation.
- Achieve a sustainable balance between the conservation, use and development of San Antonio's natural resources.

- San Antonio Master Plan Policies; May 29, 1997



City Urban Design Goals

- Preserve and enhance the City's urban design.
- Preserve and enhance the City's historic resources.
- Develop and maintain a diversified and balanced citywide system of parks and open space.
- Plan, locate and maintain infrastructure and utilities to facilitate and maintain safe, healthy and sustainable environments for human activity.
- **Develop policies for various transportation modes that will increase access to employment centers, community services, and cultural, recreational, educational and commercial facilities; and decrease the reliance on single occupancy vehicles.**



San Antonio Aviation Department Goals:

- **Mission Statement... To deliver aviation services that reflect community values and exceed customer expectations.**
- **Vision Statement... “Better and Better”**



Bexar County Mission Statement

- **Our Mission: Build a better community through quality services.**
- **Our Vision: Bexar County will be a results-oriented organization characterized by accountable, professional and innovative leadership focused on excellent service.**

- www.bexar.org/Mission/MissionStatement.html



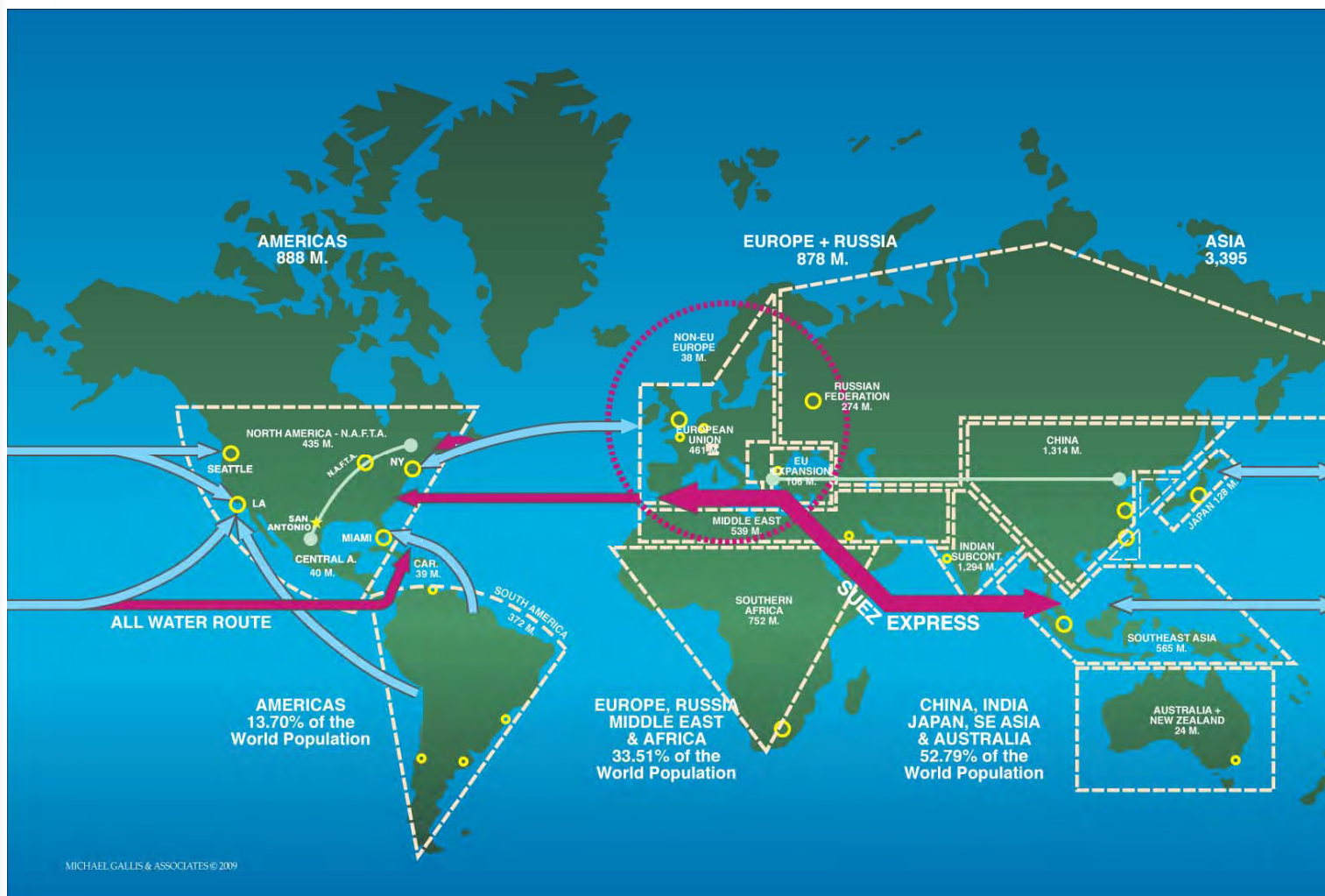
Port San Antonio Mission

- **Mission: To transform the former Kelly AFB to the benefit of San Antonio, creating quality jobs and generating economic growth.**
- **Vision: Create Port San Antonio as a high performance industrial airport, rail port and Town Center that is a quality place to live, work and play.**

-www.PortSanAntonio.us/Webpages.asp?wpid=152



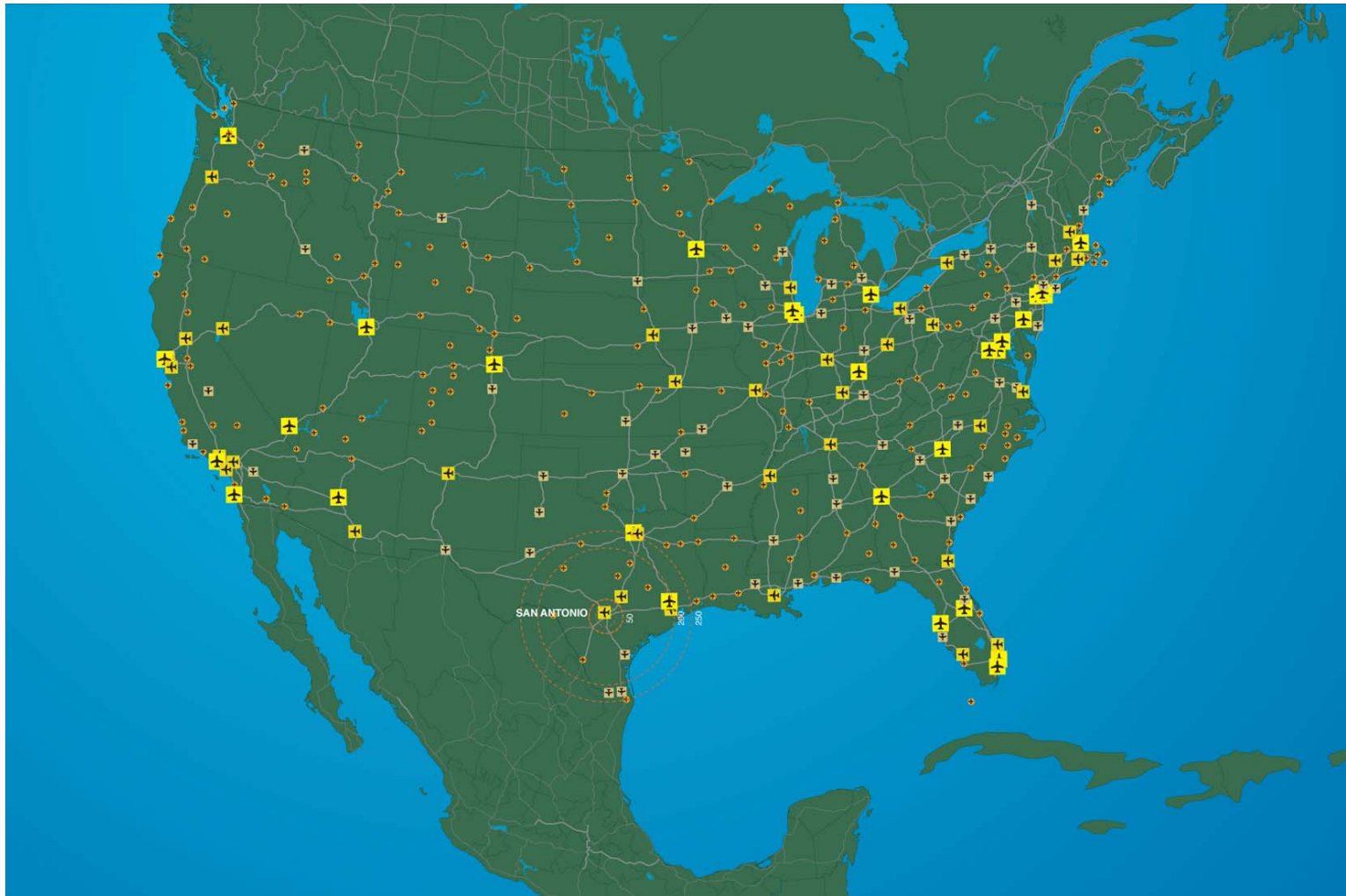
Global Context



North American Trade Flows



US FAA Designated Air Hubs



SAT Non-Stop International Flights



Source: OAG



Austin Non-Stop International Flights



Source: OAG



Houston Non-Stop International Flights



Source: OAG



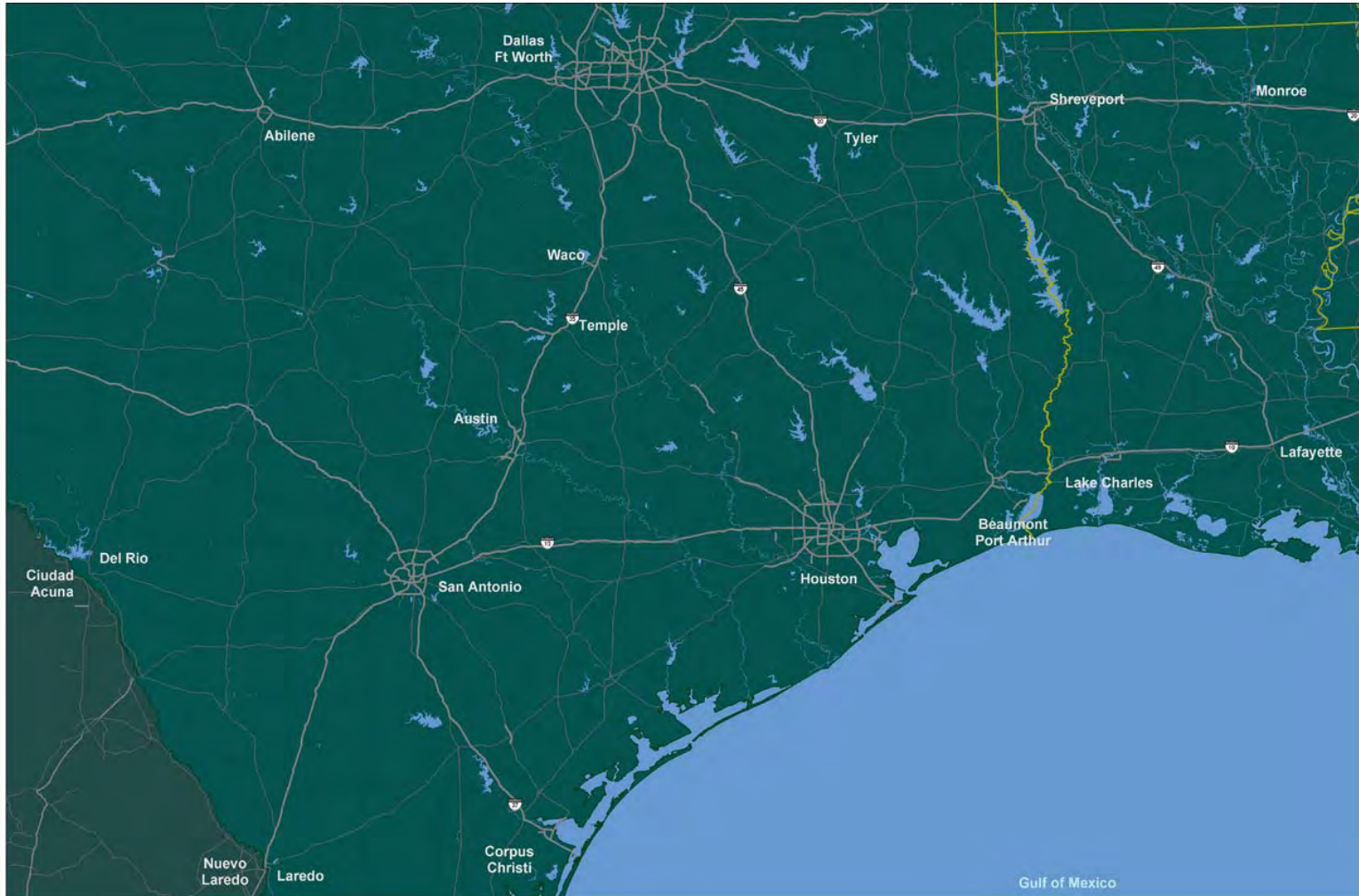
Dallas Non-Stop International Flights



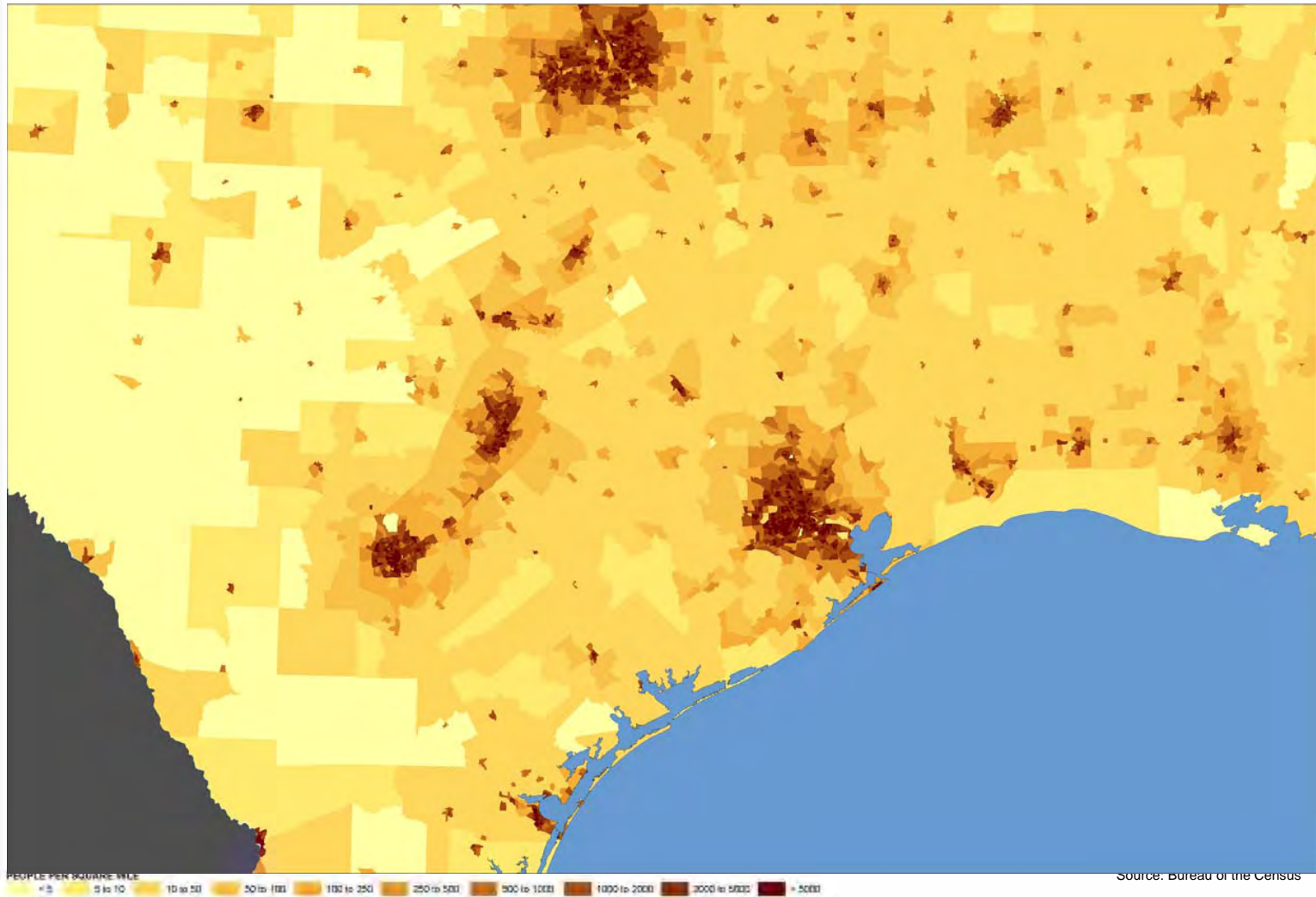
Source: OAG



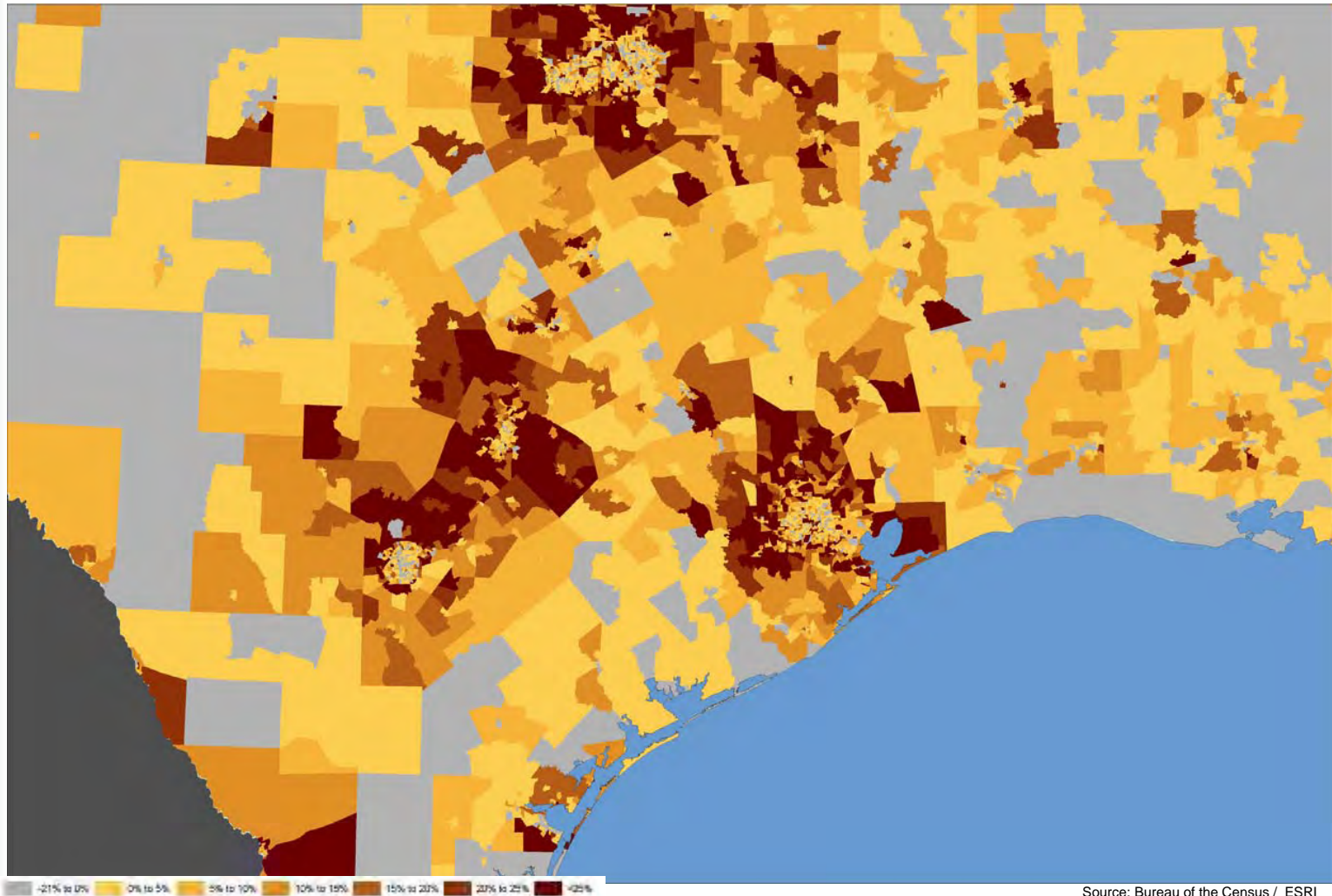
San Antonio – Deep in the Heart of Texas



Demographics – Population Density 2007



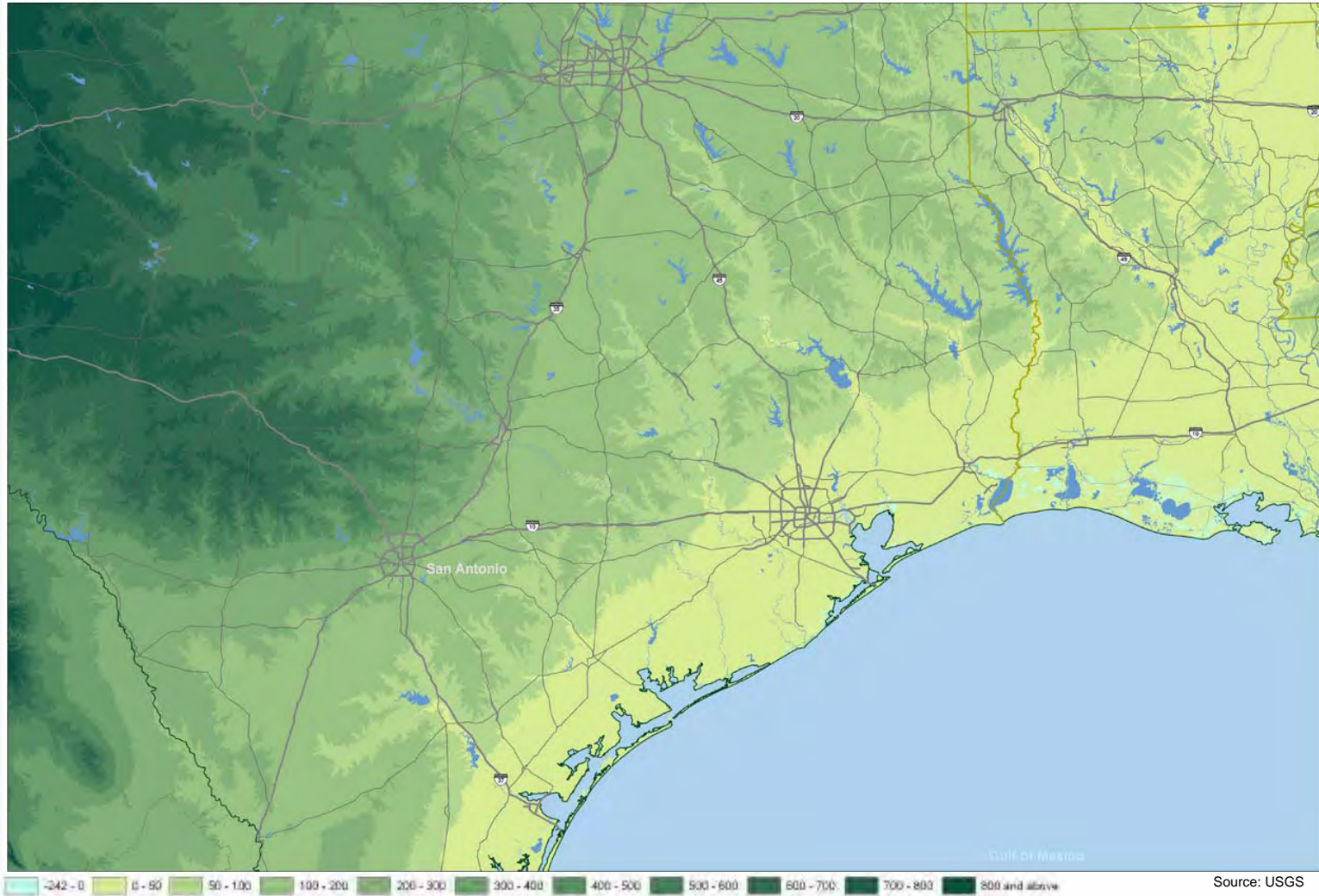
Demographics – Pop Growth 2000-2007



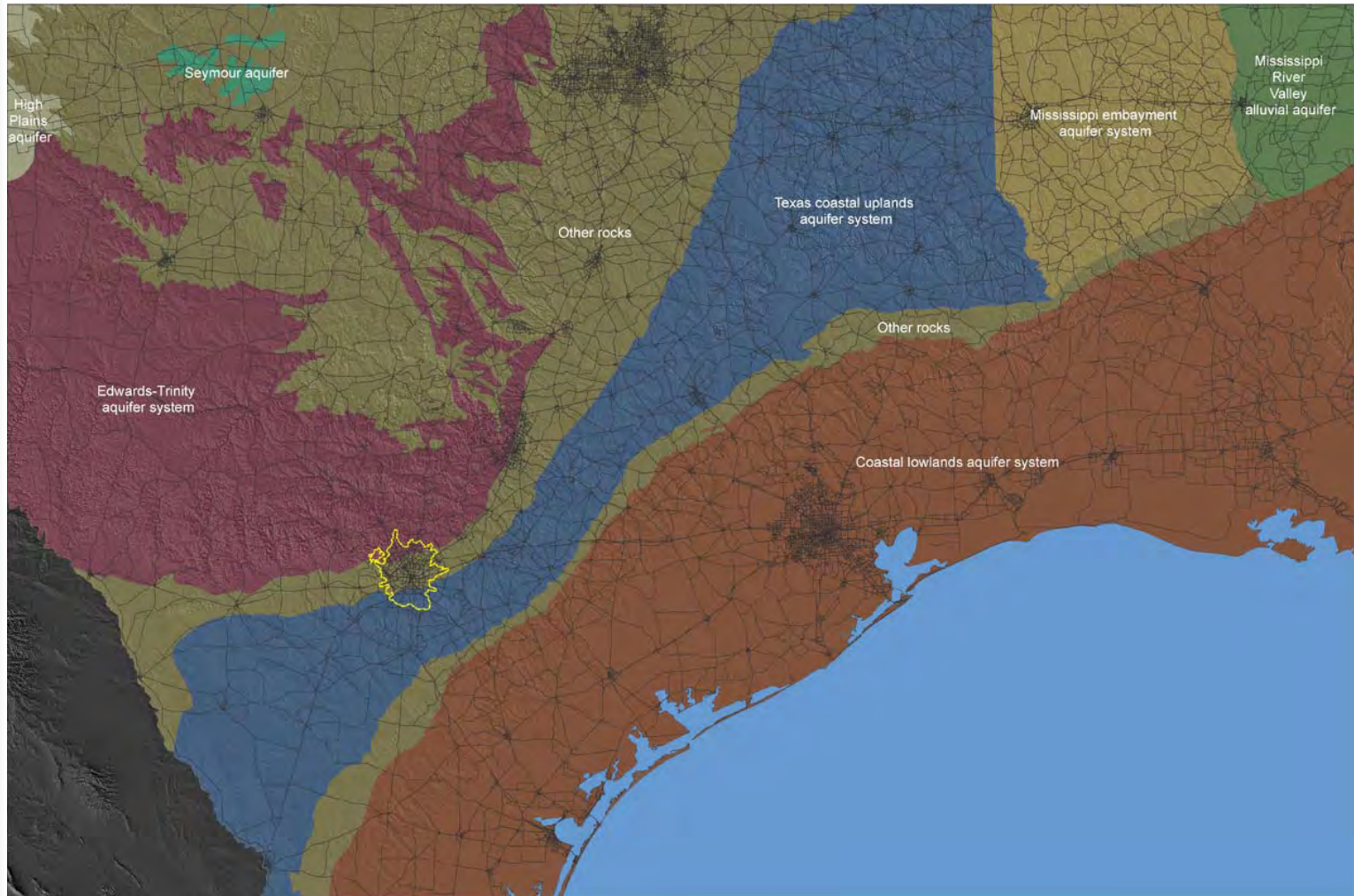
Source: Bureau of the Census / ESRI



Environment - Topography



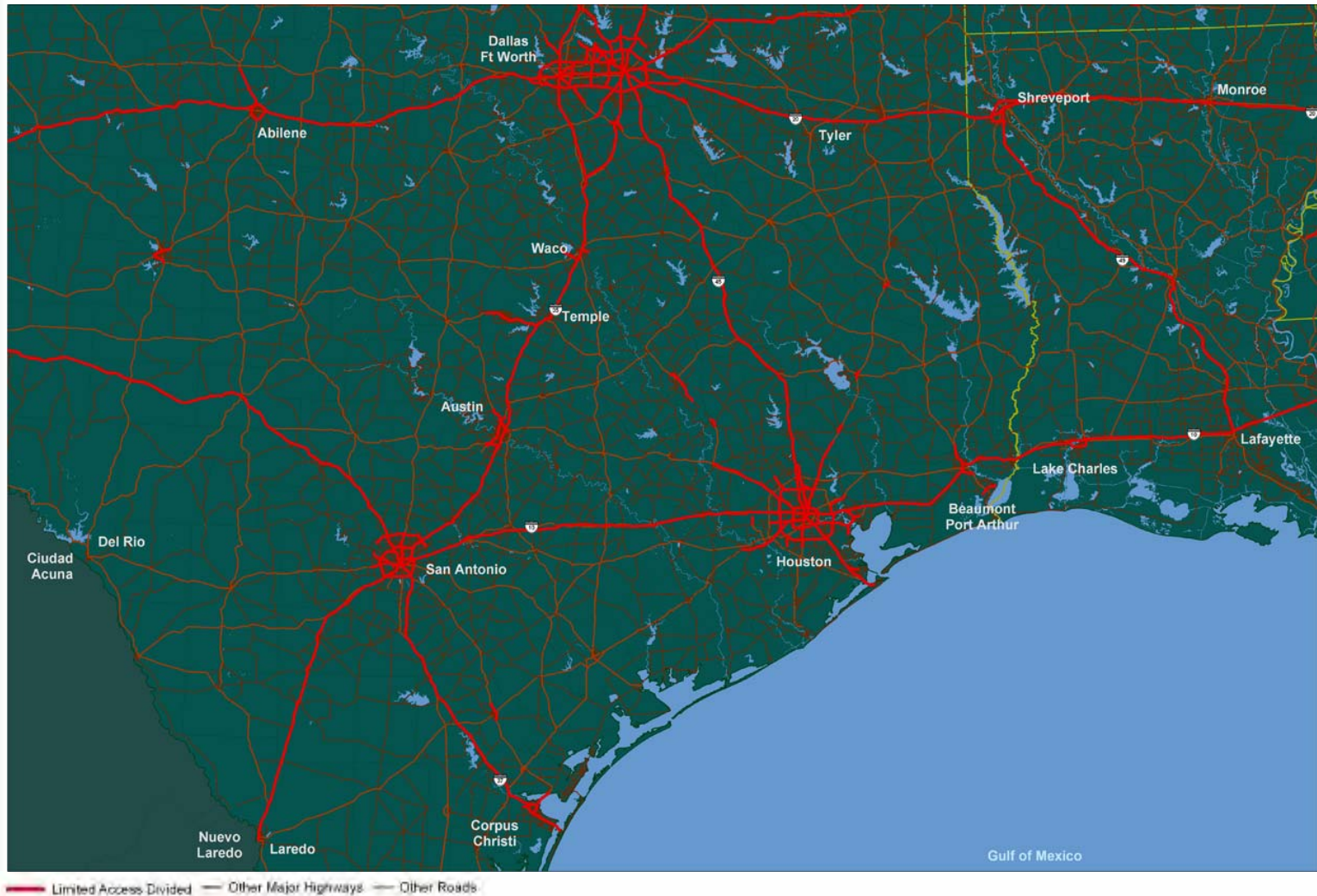
Environment - Aquifers



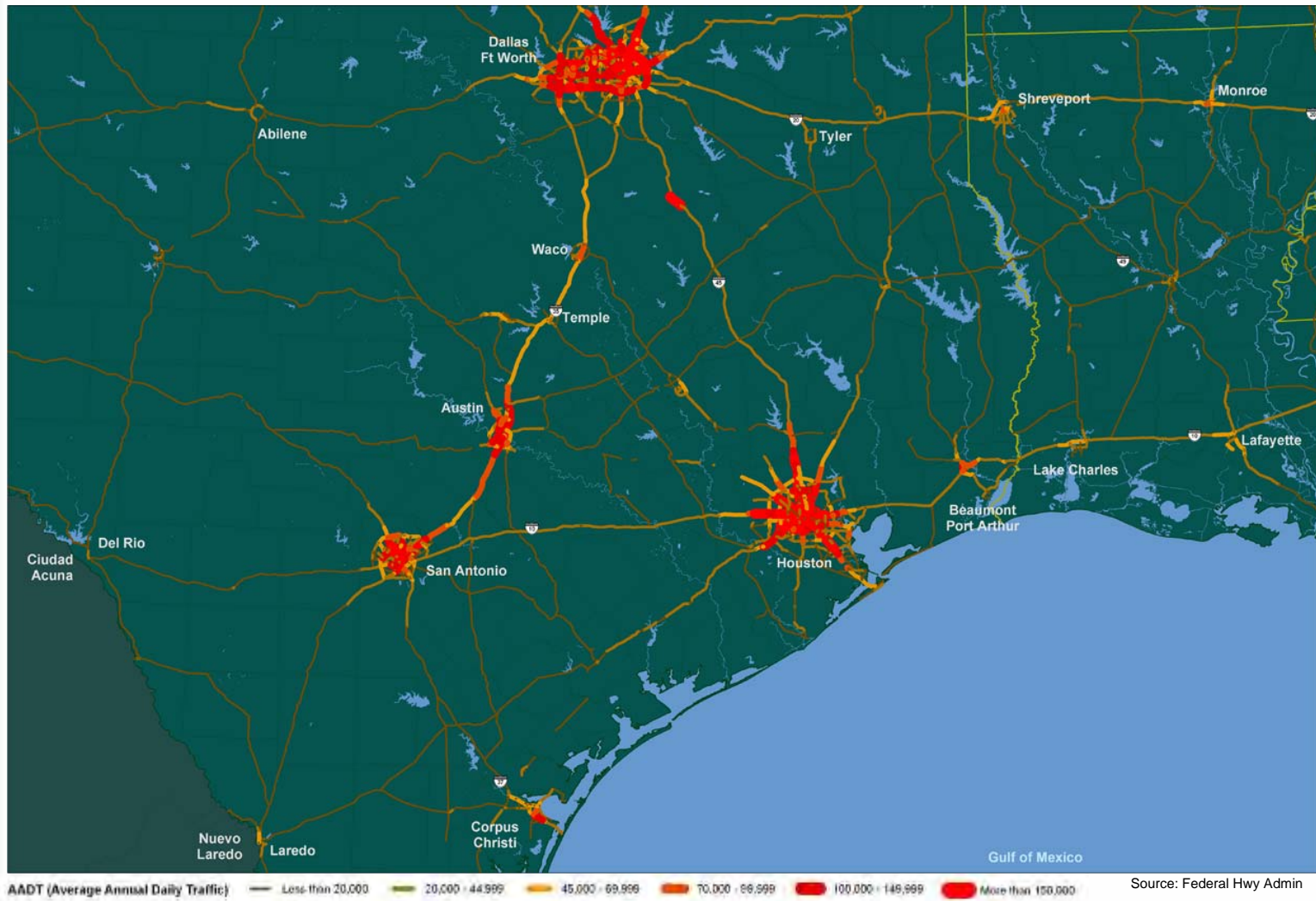
Source: USGS



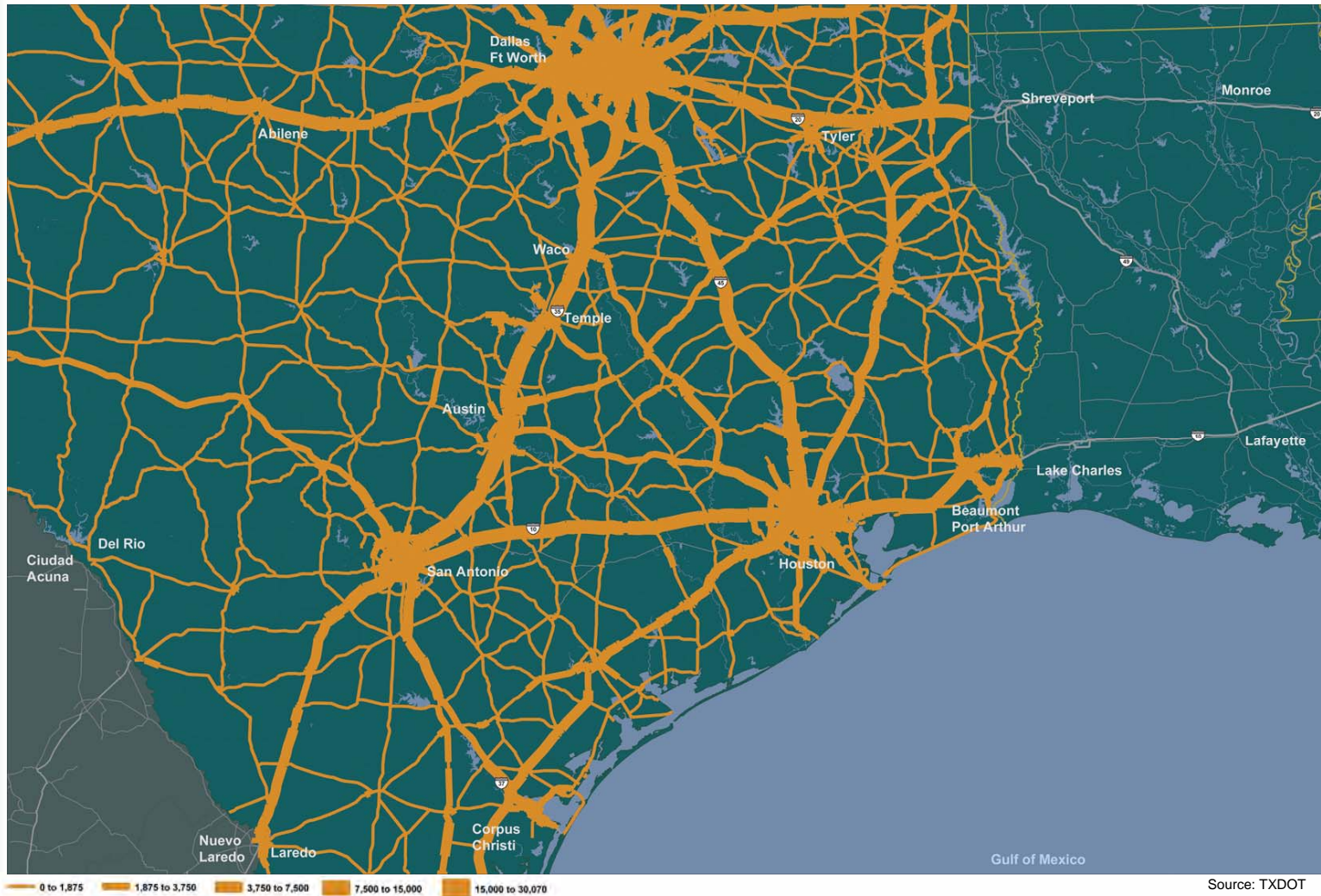
Transportation – Major Highways



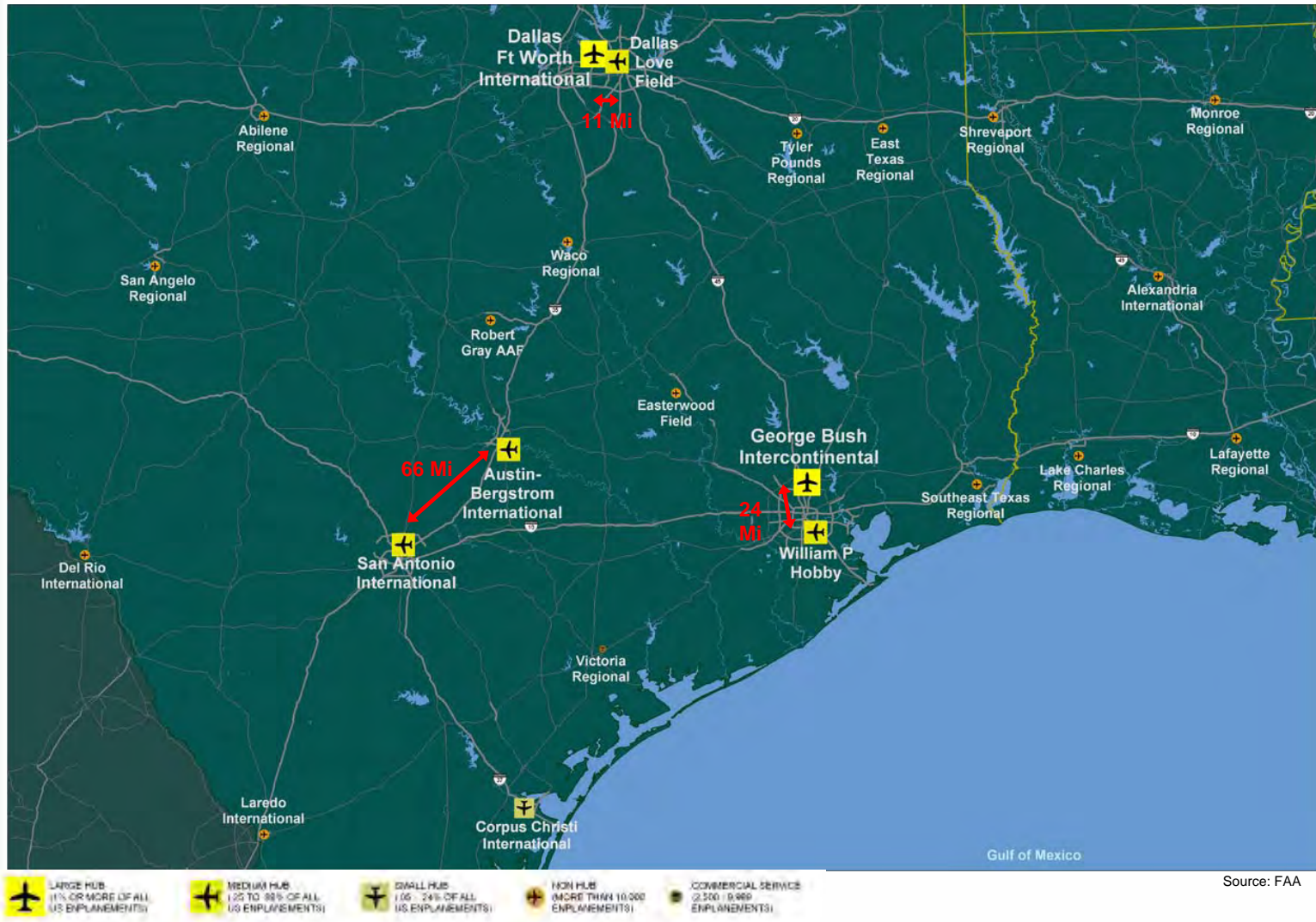
Transportation – Traffic Counts



Transportation – Truck Flows

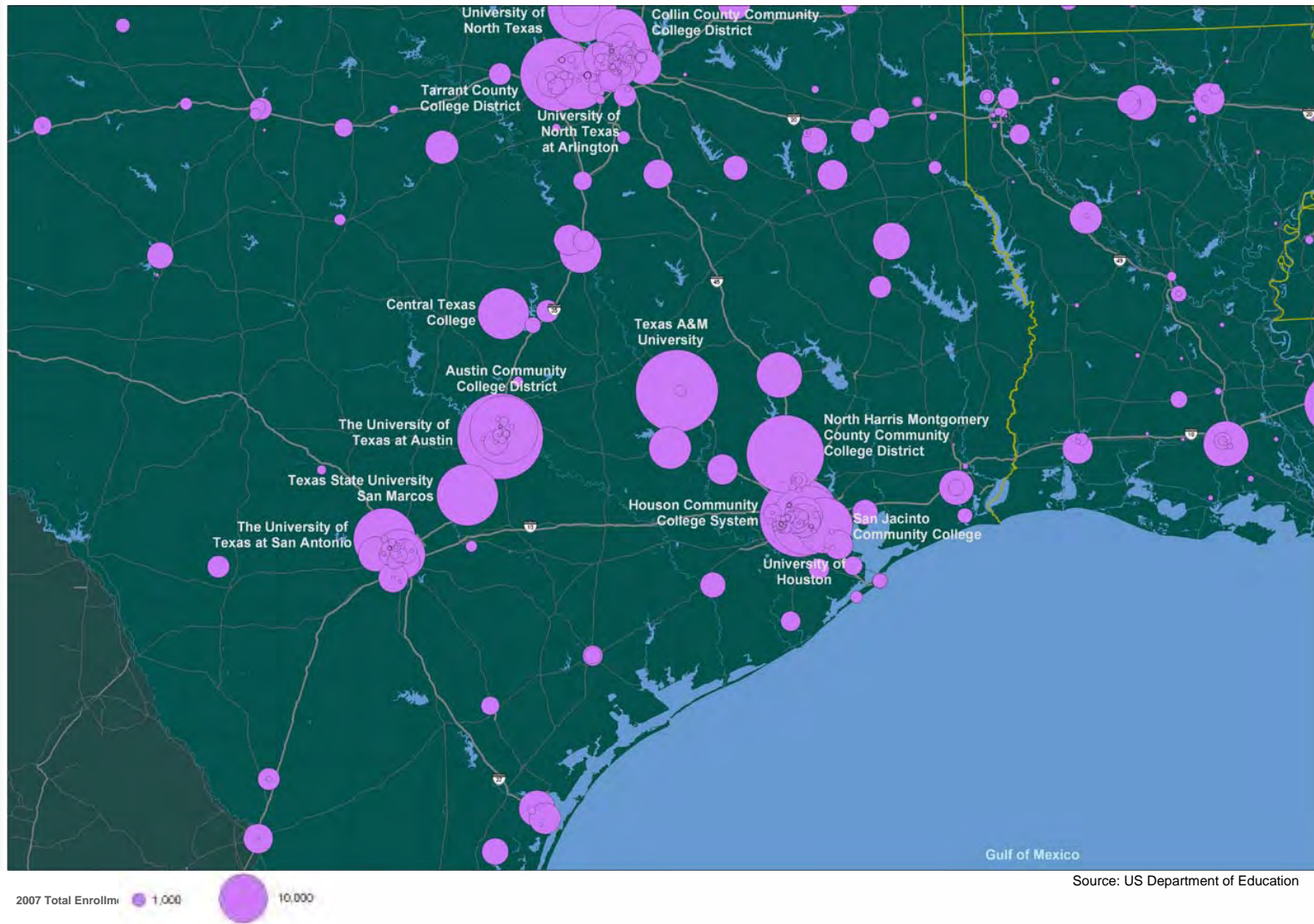


Transportation - Airports

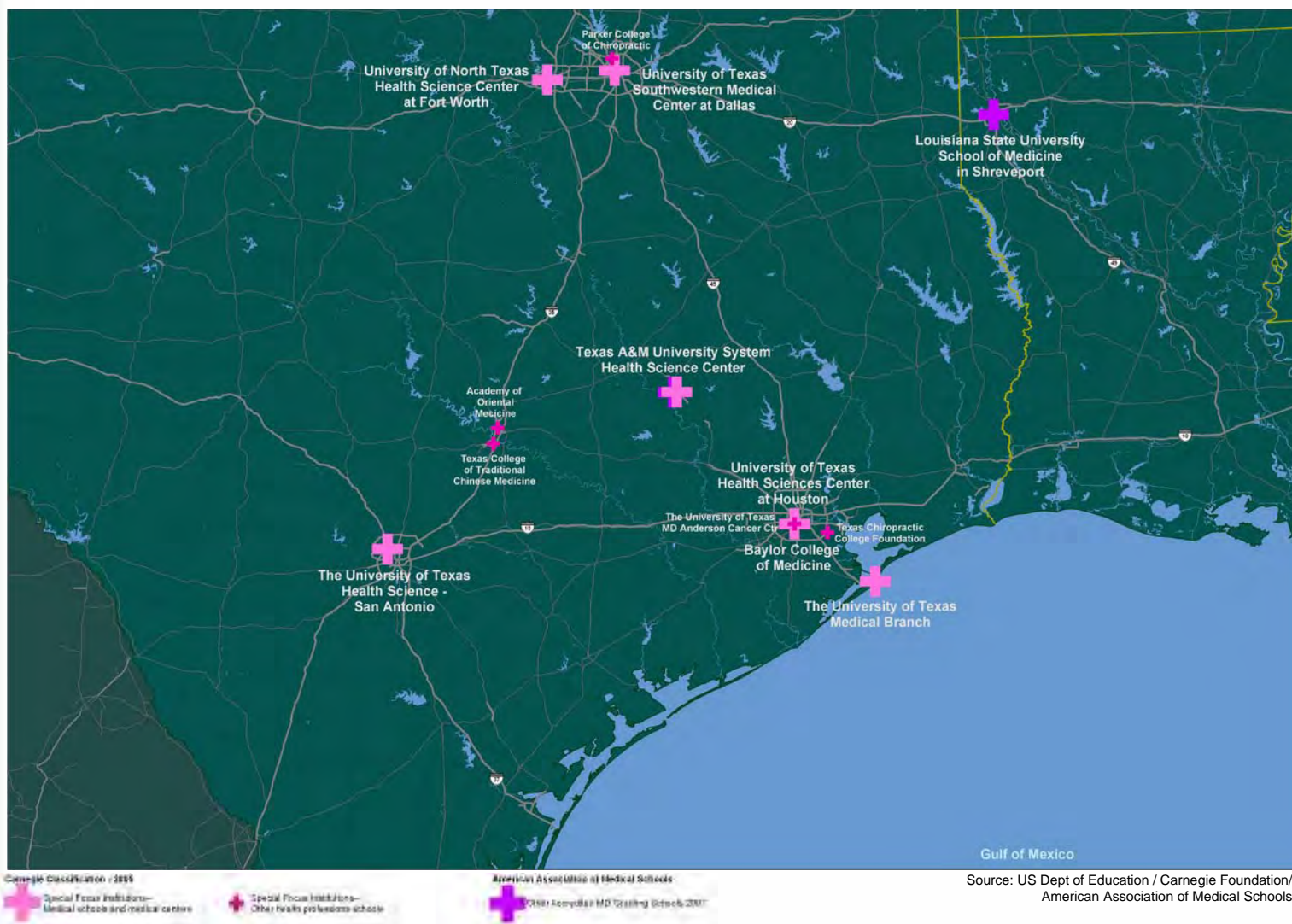


Source: FAA

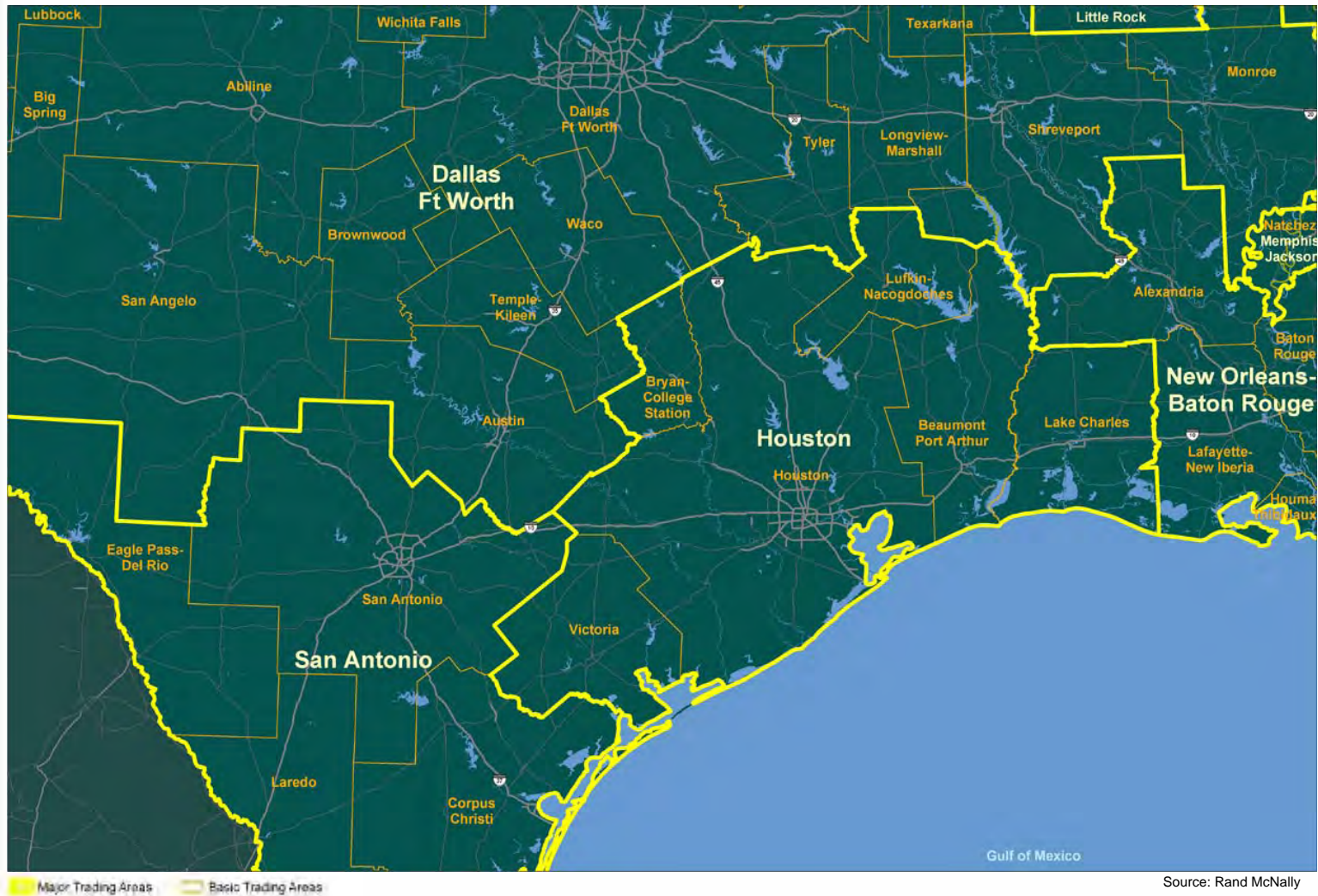
Education – Colleges and Universities



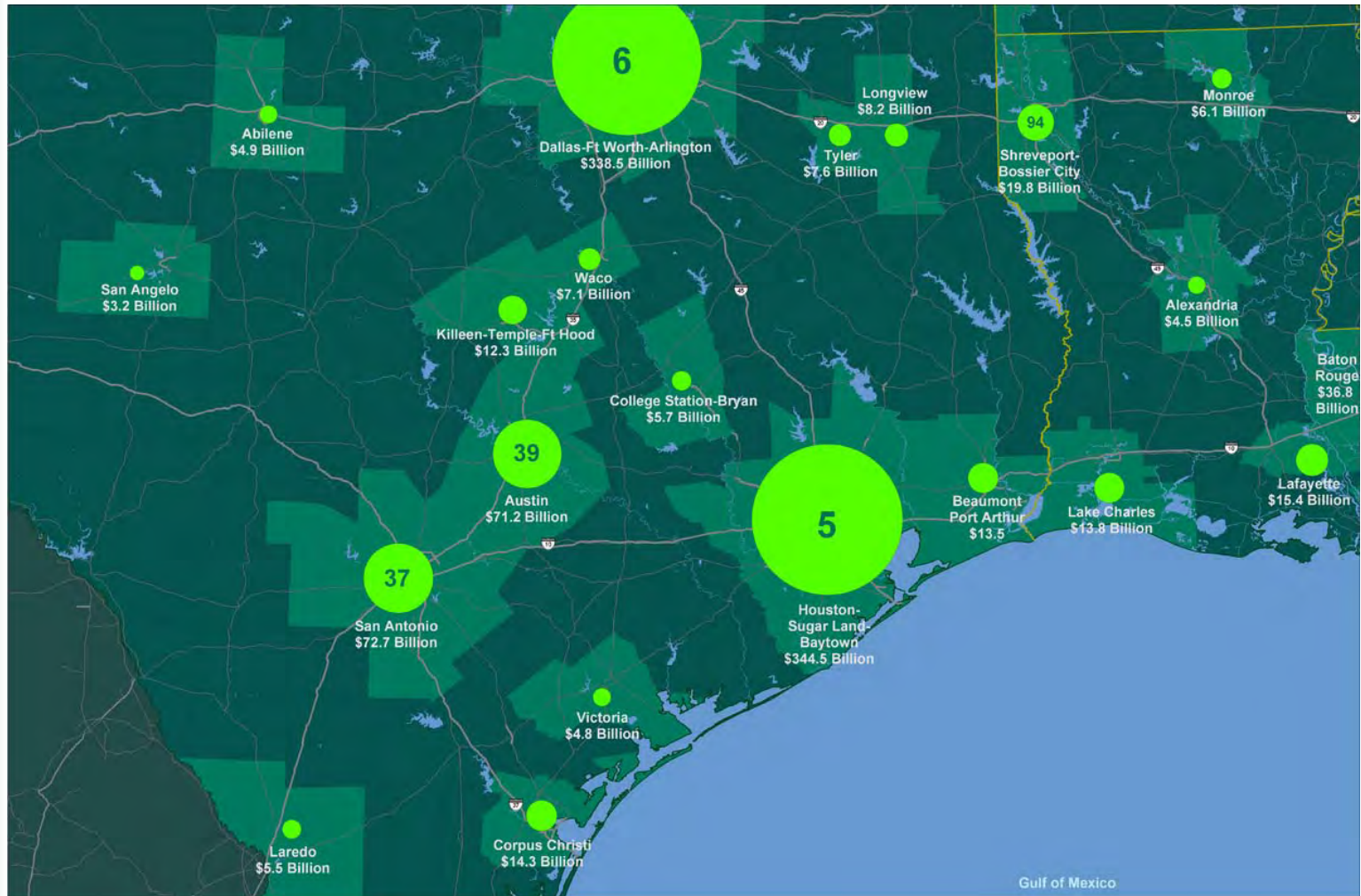
Health & Human Svcs – Medical Schools



Econ / Business – Trade Areas



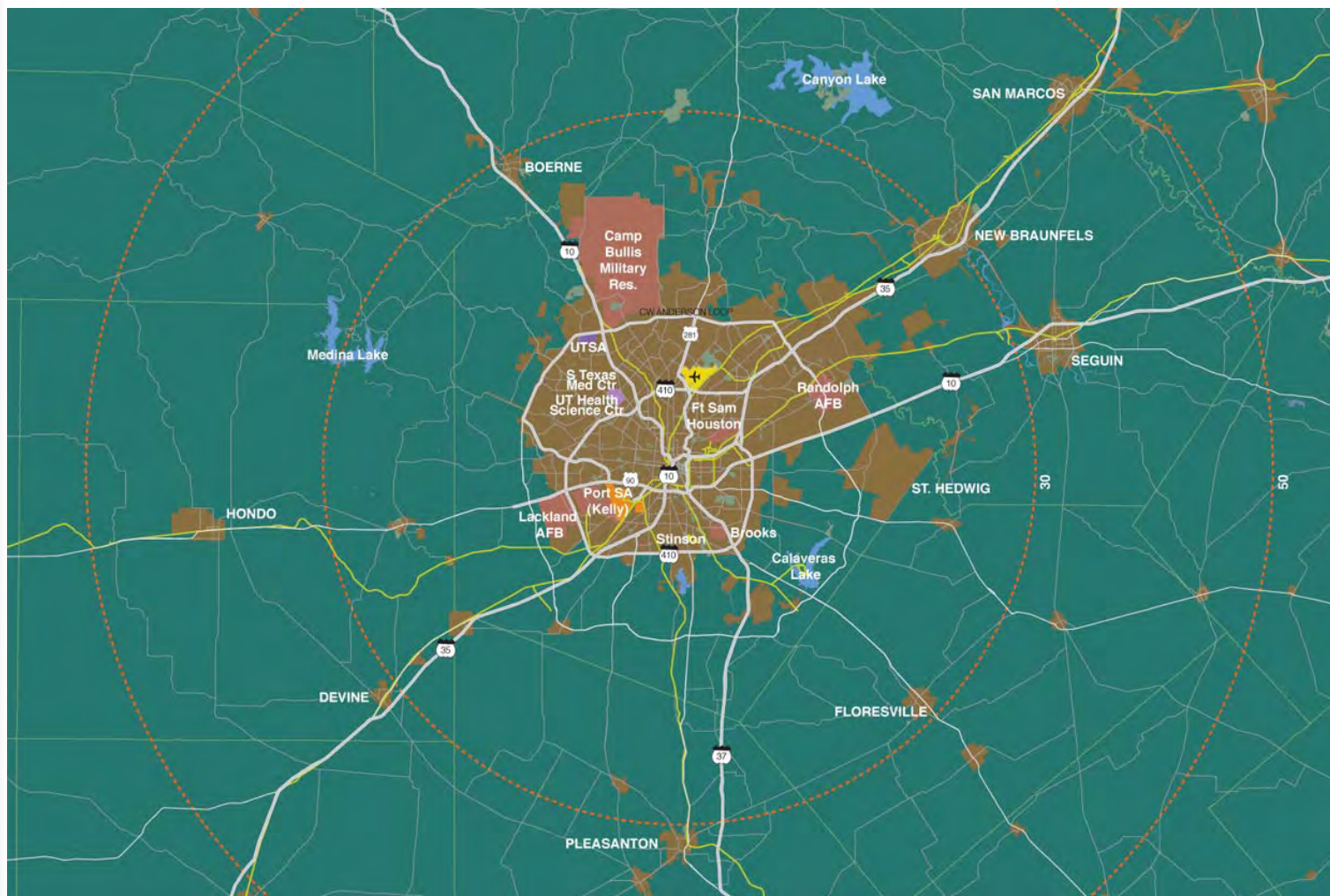
Econ / Business—Gross Metro Product 06



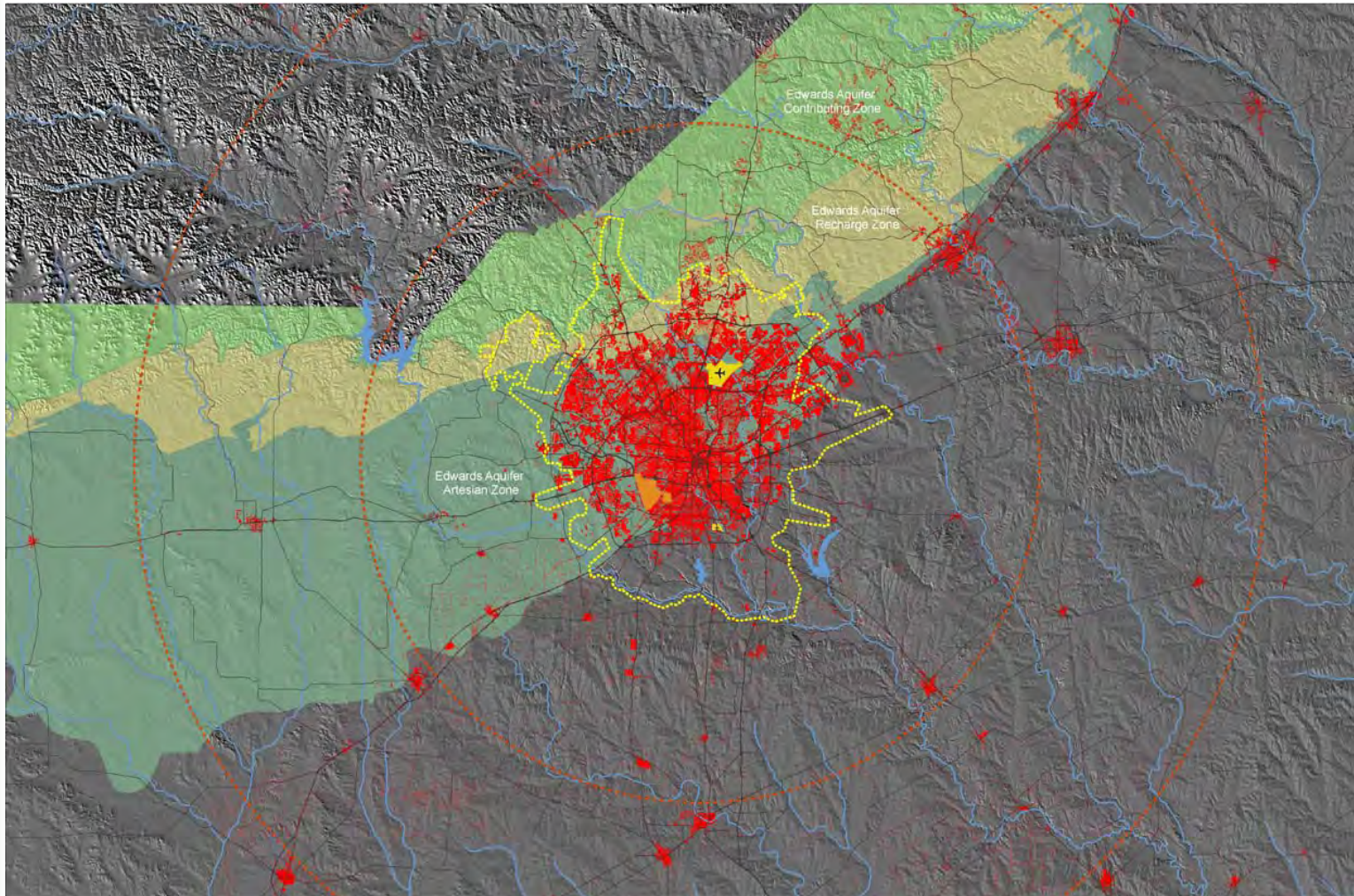
Source: Bureau of Economic Analysis



San Antonio Region



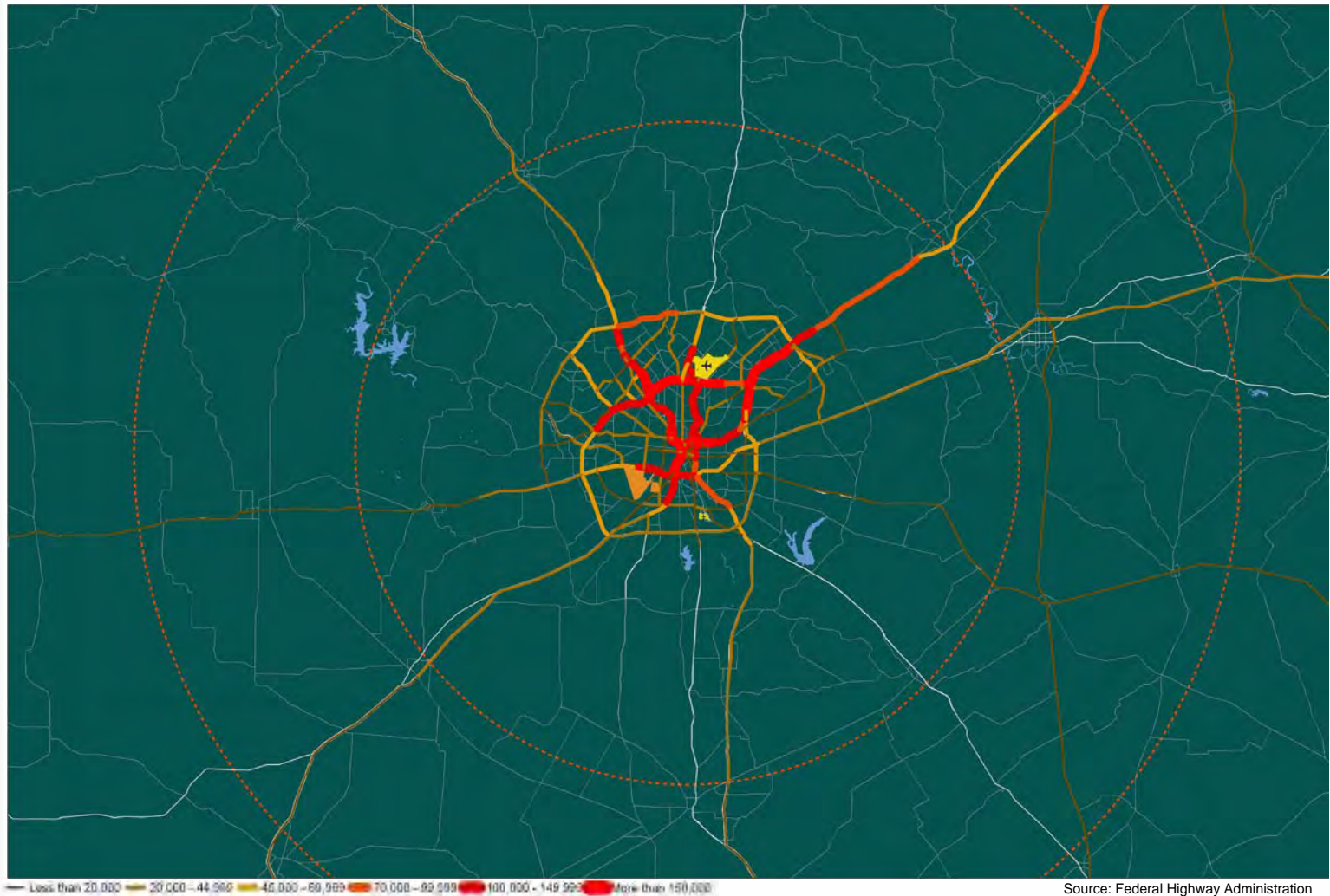
Environment – Edwards Aquifer Zones



Source: Edwards Aquifer Authority

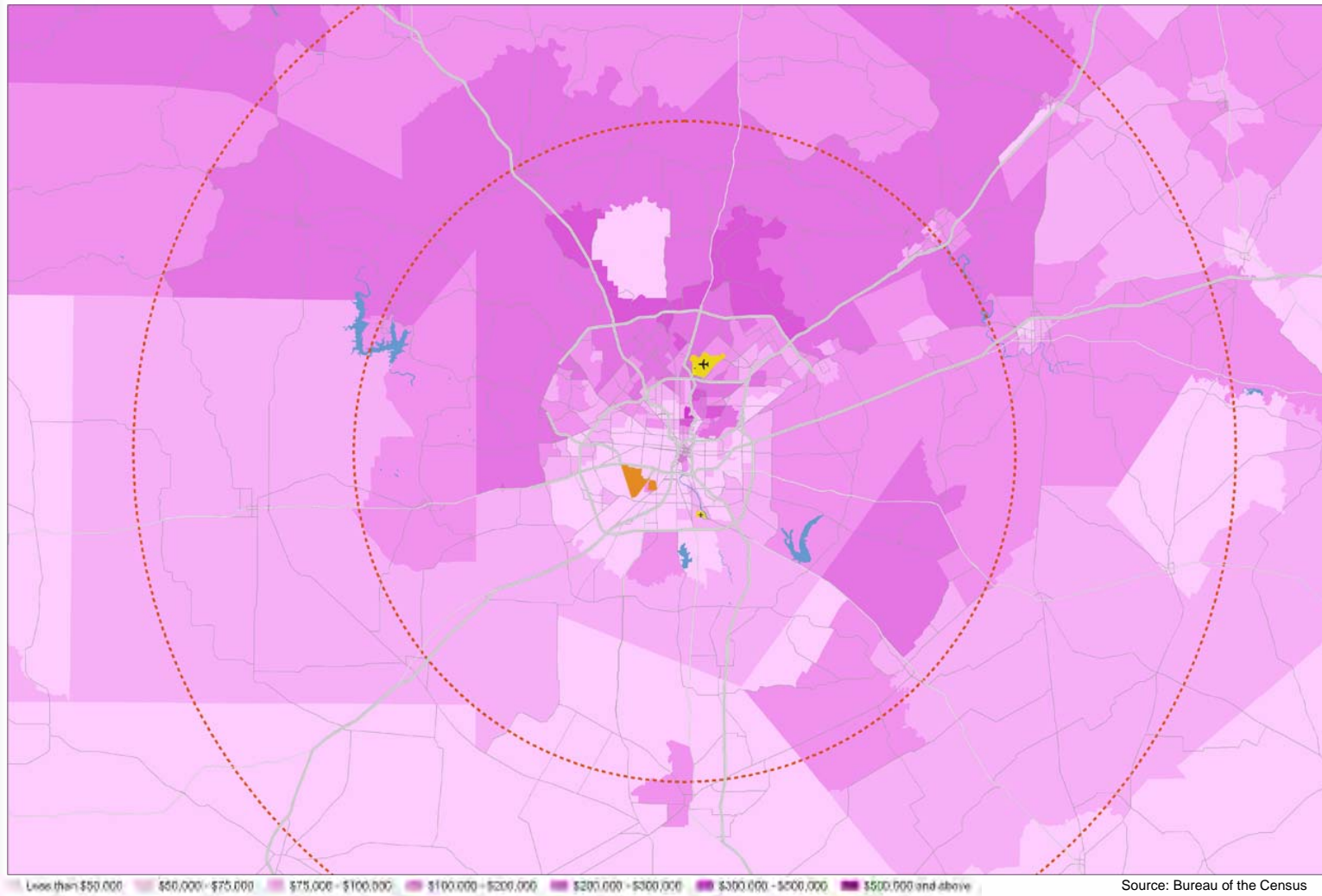


Transportation- Traffic Counts



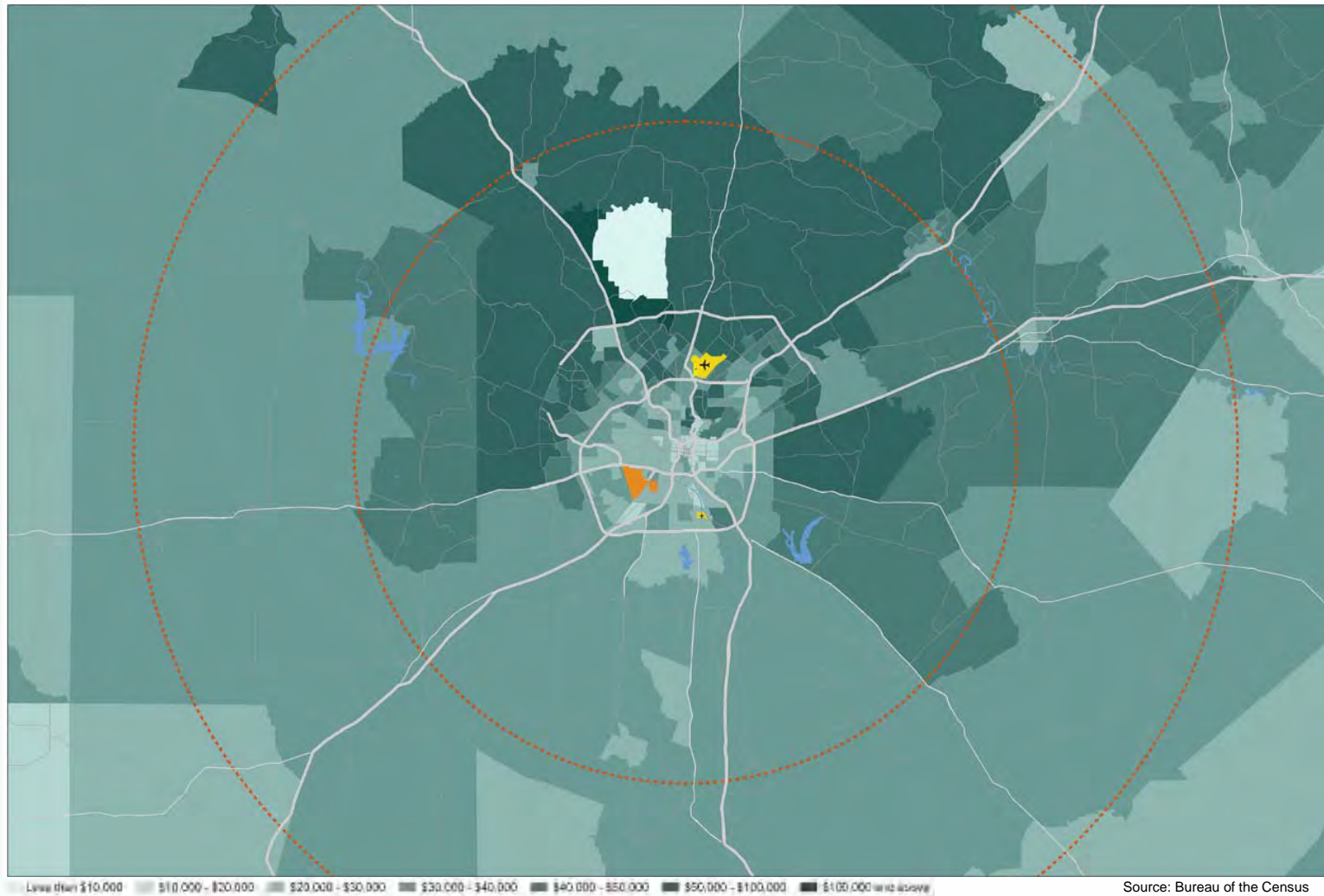
Source: Federal Highway Administration

San Antonio – Median House Value - 2000



Source: Bureau of the Census

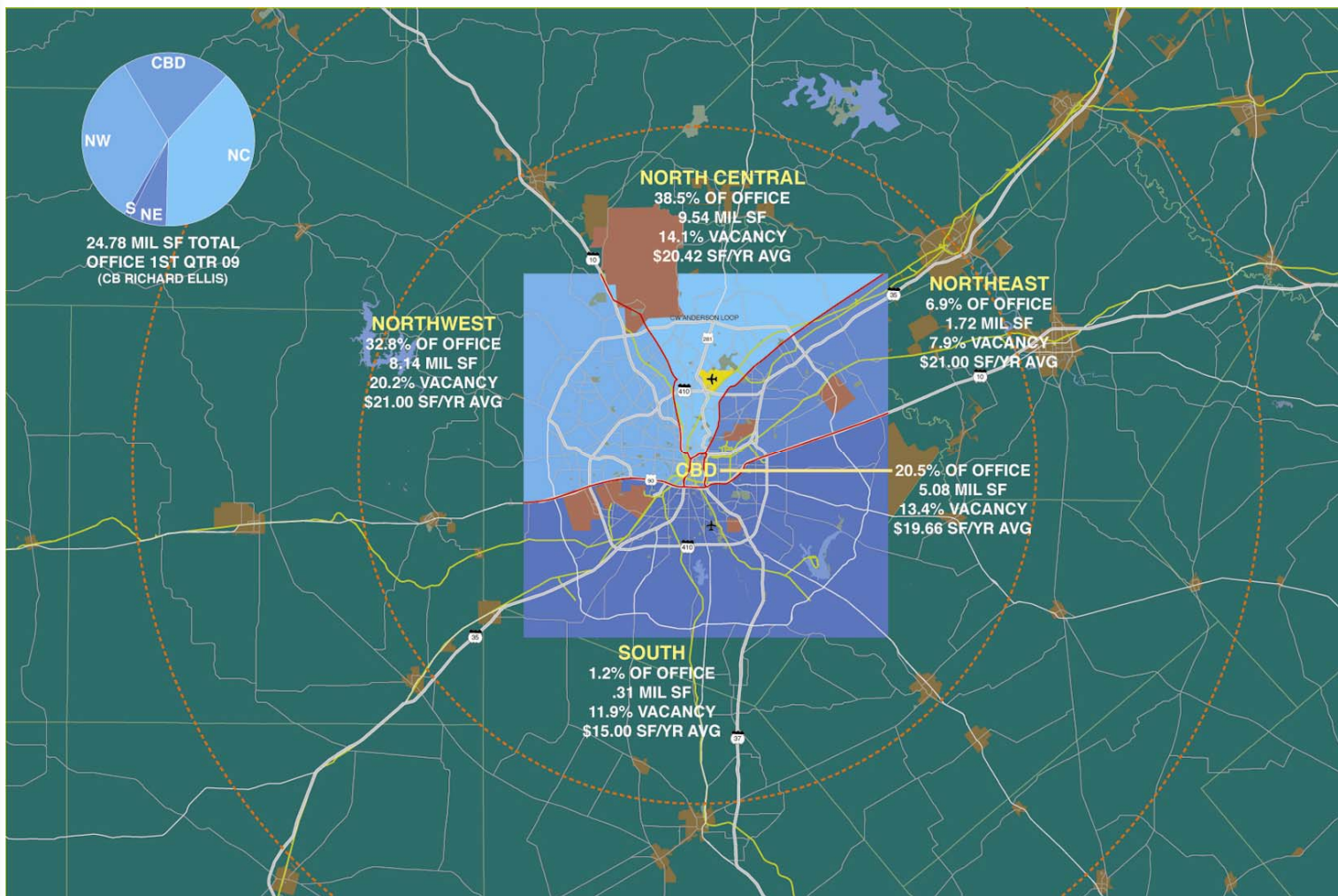
San Antonio – Median Household Income



Source: Bureau of the Census



Real Estate – Office Markets



Source: CB Richard Ellis



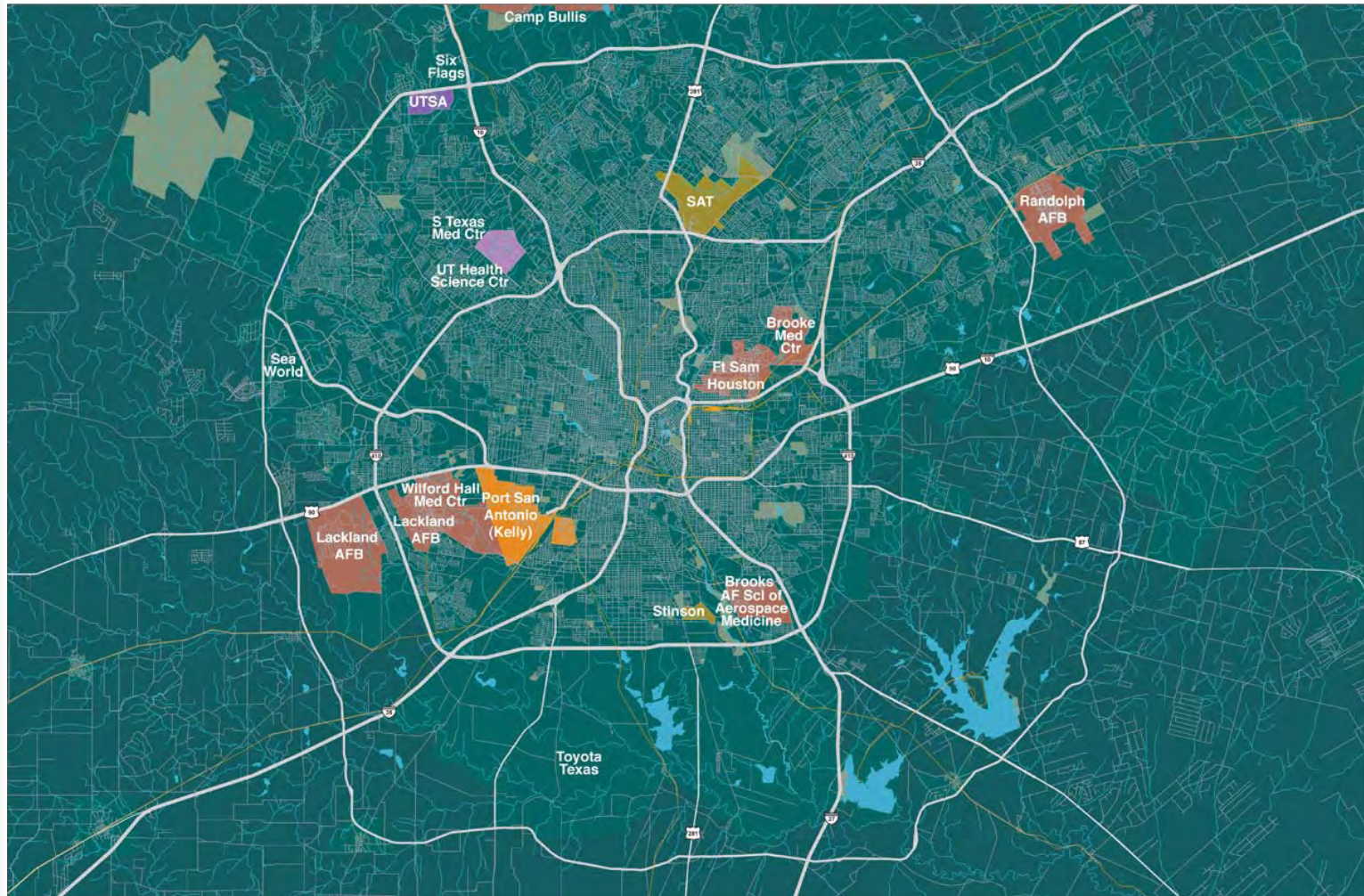
Real Estate – Industrial Markets



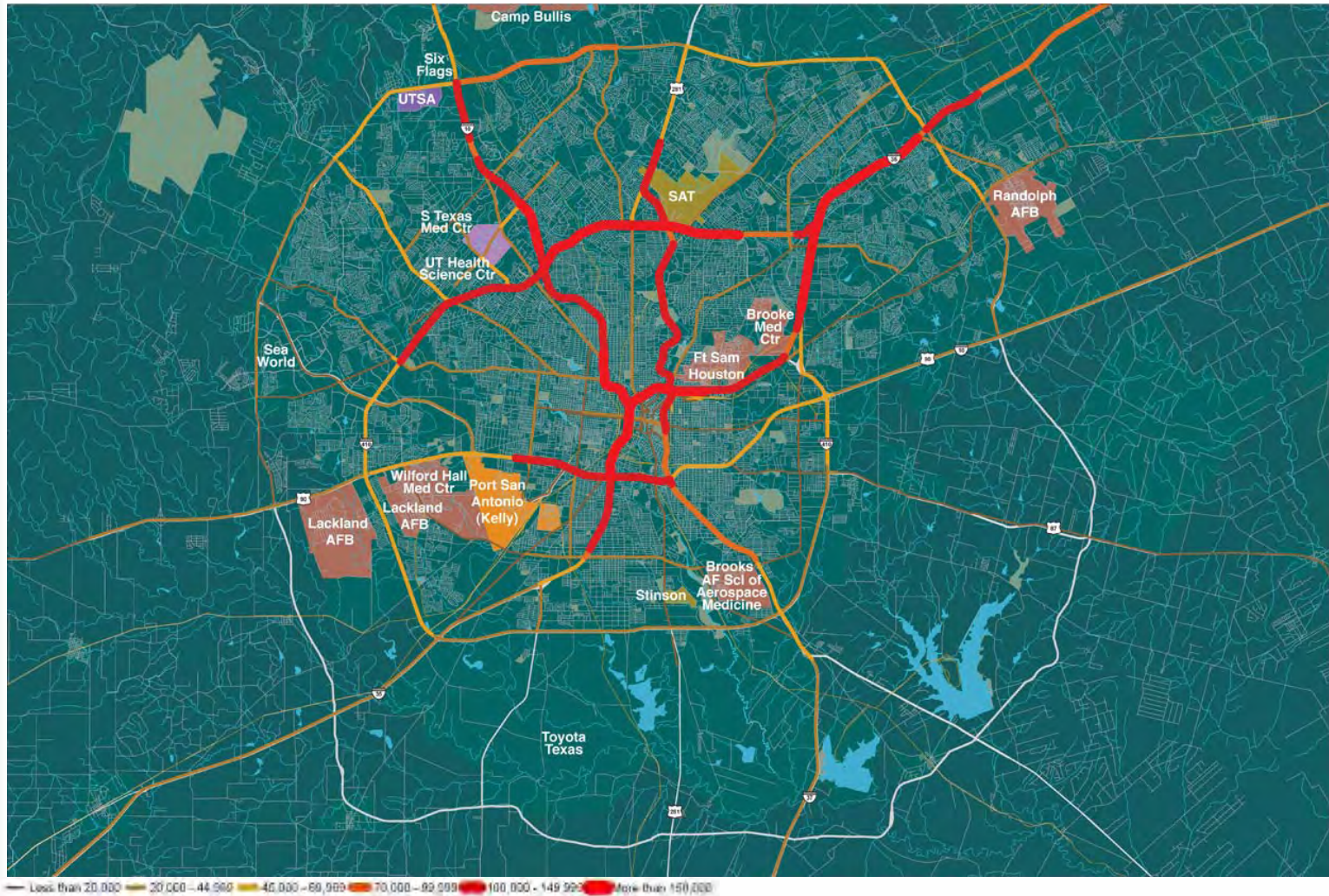
Source: CB Richard Ellis



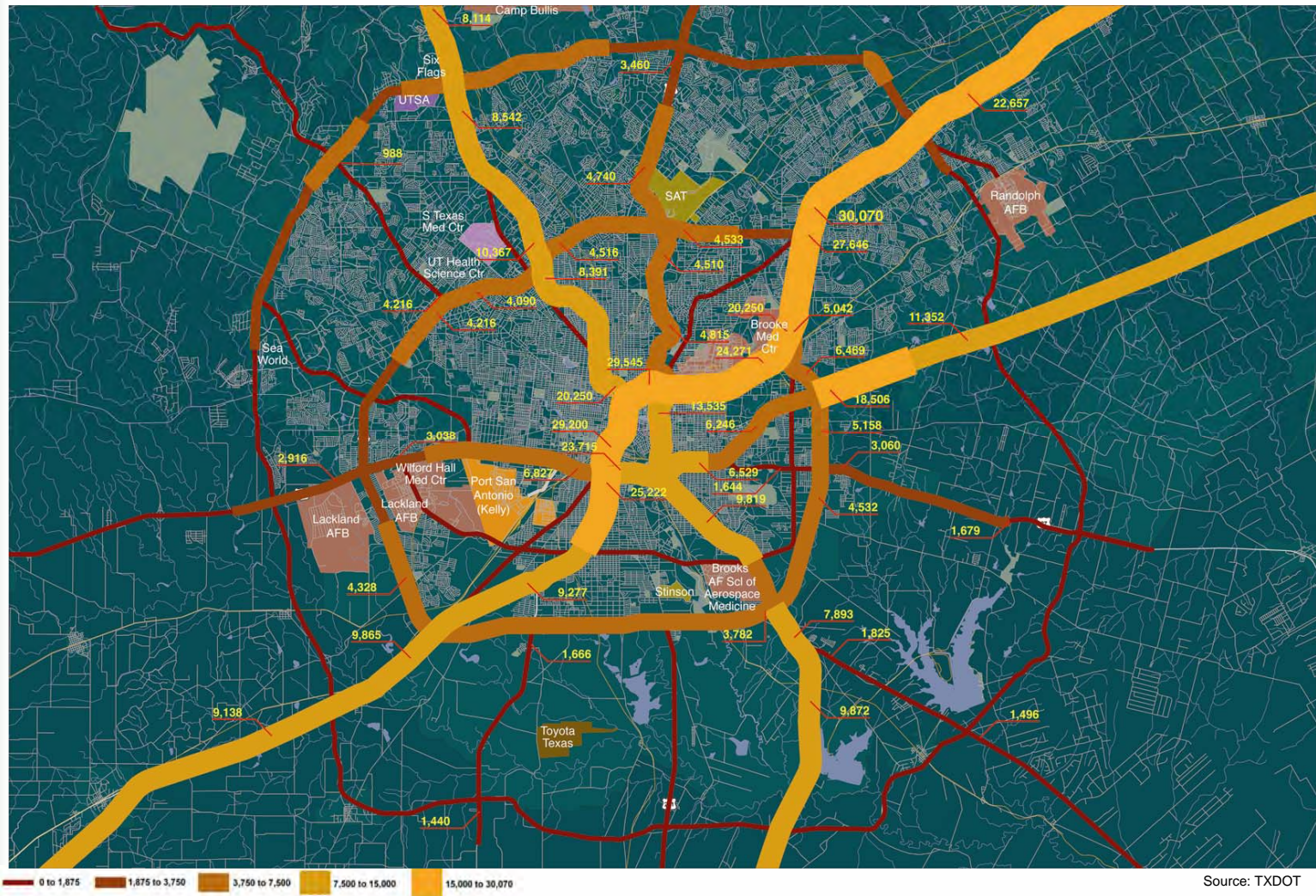
San Antonio Metro



San Antonio – Traffic Counts

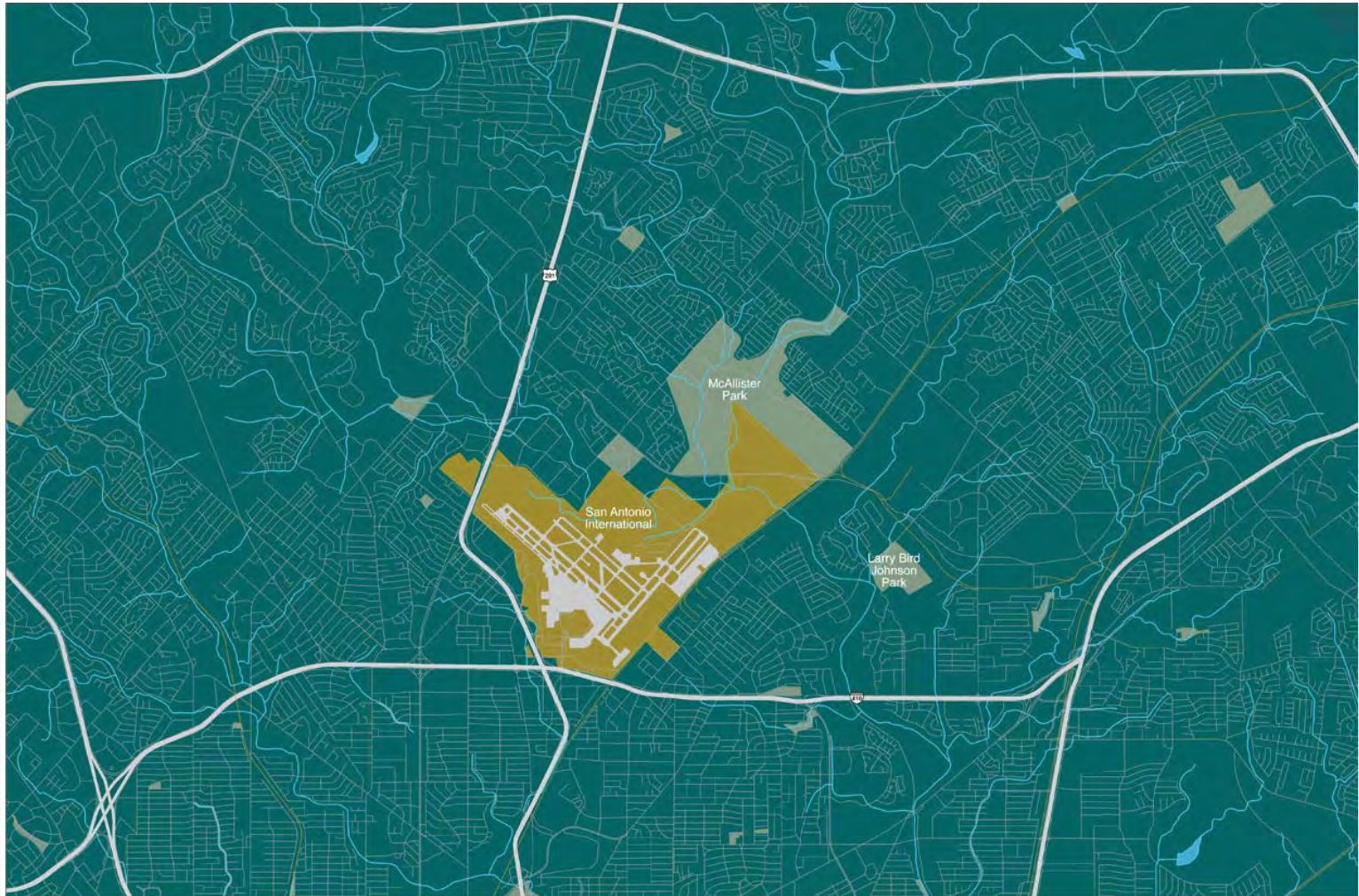


San Antonio – Truck Flows

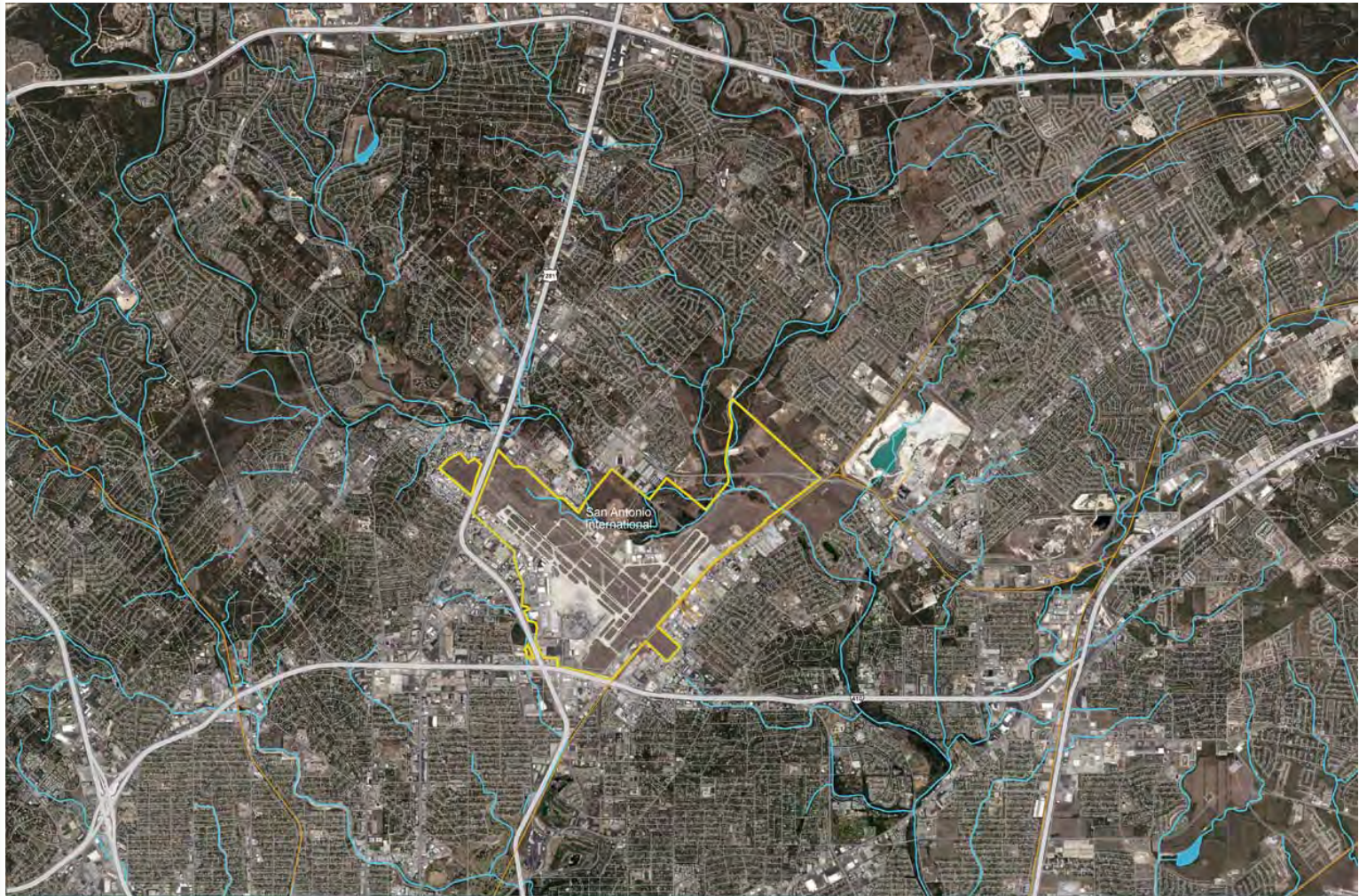


Source: TXDOT

San Antonio Northeast Quadrant



San Antonio – Northeast Quadrant



What is an Airport?

➤ **Airport is the foundation for regional economic development**

Focus on the relationship of the airport to the regional economy and its effects on the key economic clusters including healthcare & tourism

➤ **Airport is a component of the transportation system**

Focus on relationship of airport to all other modes of passenger and freight transportation and logistics and all ancillary services

➤ **Airport is an island**

Focus on internal airport infrastructure, facilities, functions and operations



Vision, Goals & Objectives

➤ Vision Statement

- To be developed during project

➤ Goals & Objectives

- Airfield / Airspace
- Terminal
- Ground Transportation
- Integrated Multi-Modal Hub
- Freight Transportation
- Environment
- Financial
- Regional Development
- Future Technologies



Vision

➤ Vision Statement

- *Focused on what the Airport will need to be in order to support and fulfill the future “Destiny of San Antonio”*
- Focus on developing a broad and inclusive Vision for the airport connected to the overarching “Destiny” of the City and Region including its economy, institutions (including Universities and Medical), environment, society and technology.



Goals & Objectives

➤ Airfield / Airspace

- *Focused on the configuration of the airfield to support the level of air service needed by the region in the planning horizon.*
- *Goal*
- *Objectives*



Goals & Objectives

➤ Terminal

- *Focused on the type and configuration of terminals to form one of the key gateways to the region and to provide for air service demand with an acceptable level of service in the decades to come.*
- *Goal*
- *Objectives*



Goals & Objectives

➤ Ground Transportation

- *Focused on improving passenger access by road, transit and high-speed rail from the city and region to the airport, and the role of an airport intermodal hub in the surface transportation network of the region and Texas.*
- *Goal*
- *Objectives*



Goals & Objectives

➤ Integrated Multi-Modal Hub

- *Focused on developing the Airport as a multi-modal transportation hub achieving seamless integration of passenger and freight movements involving all modes, including air, road, truck, freight rail, high-speed rail, and transit.*
- *Goal*
- *Objectives*



Goals & Objectives

➤ Freight Transportation

- *Focused on identifying and determining the role of increased air-freight operations at the Airport, the amount of freight handled in the region and the opportunity of the airport as a continental trade hub.*
- *Goal*
- *Objectives*



Goals & Objectives

➤ Environment

- *Focused on making San Antonio a leader in the new green technology.*
- *Goal*
- *Objectives*



Goals & Objectives

➤ Financial

- *Focused on prioritizing investments to meet regional goals and objectives.*
- *Goal*
- *Objectives*



Goals & Objectives

➤ Regional Development

- *Focused on strengthening the role and relationship of the Airport as a driver to the social and economic future of the region.*
- *Goal*
- *Objectives*



Goals & Objectives

➤ Future Technologies

- *Focused on incorporating, incubating and applying new technologies.*
- *Goal*
- *Objectives*



Next Steps

➤ Master Plan Advisory Committees

- Conclude meetings with each advisory committee
- Provide a summary of the committee feedback and post it on Airport website
- Schedule next meeting – early 2010

➤ Master Plan Analysis

- Complete the NEEDS elements – before the end of the year
- Initiate the SOLUTIONS effort to identify improvement alternatives through 2030
- Begin examining financial aspects of future development
- Complete in 18 months





www.sanantonio.gov/Aviation
